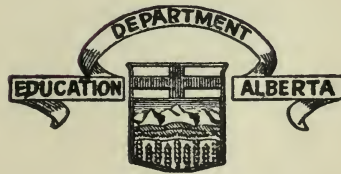


CURRICULUM GUIDE
PROGRAM of STUDIES
for
SENIOR HIGH SCHOOLS
of
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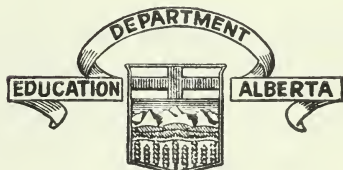
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INTRODUCTION

This Program of Studies contains an outline content of each course in the senior high school together with a list of the authorized texts and approved secondary references. Regulations with respect to the credit value of courses, examinations and other matters relating to the operation of the high school appear in the current issue of the *Senior High School Handbook*.

Teachers who want suggestions concerning methods of handling a given course will find them in the related curriculum guide which may be obtained through the office of their superintendent or from the Curriculum Branch of the Department of Education.

The assistance of subcommittees in preparing the outlines in the various subjects is gratefully acknowledged. The evaluation and constructive criticism of the interim draft by school systems and by members of the Faculty of Education is appreciated.



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TABLE OF CONTENTS

1. SENIOR HIGH SCHOOL ENGLISH

English 10	2
English Language 20	5
English Literature 20	7
English 30	9
English Language 21	10
English Literature 21	13
Reading 10	14
English 23, 33	17
Chart of Language Activities	17

2. SOCIAL STUDIES

Social Studies 10	22
Social Studies 20	31
Social Studies 30	35

3. SOCIOLOGY

Sociology 20	115
--------------------	-----

4. GEOGRAPHY

Geography 20	111
--------------------	-----

5. ECONOMIC

Economics 30	113
--------------------	-----

6. PSYCHOLOGY

Psychology 20	119
---------------------	-----

7. PHYSICAL EDUCATION

Physical Education	43
--------------------------	----

8. MATHEMATICS

Mathematics 10	53
Mathematics 20	54
Mathematics 30	56
Mathematics 31	57
Mathematics 11	58
Mathematics 21 (See also Business Education p. 83)	58
Mathematics 12 (See also Business Education p. 83)	59
Mathematics 22	59
Mathematics 32	60

9. SCIENCE

Science 10	61
Science 11	62
Science 20	64
Chemistry 30	67

Physics 30	68
Science 22	70
Physics 32	71
Biology 20	72
Biology 30	74
Biology 32	75

10. BUSINESS EDUCATION

Record Keeping	77
Bookkeeping 10	77
Bookkeeping 20	78
Accounting 30	79
Business Fundamentals 10	80
Business Machines 30	80
Law 20	81
Merchandising 20	83
Office Practice 20	85
Office Practice 30	86
Shorthand 10 (Pitman, Gregg)	86
Shorthand 20 (Pitman, Gregg)	88
Shorthand 30 (Pitman, Gregg)	89
Typewriting 10	90
Typewriting 20	90 A
Typewriting 30	90 A
Data Processing 32	90 B

11. FOREIGN LANGUAGES

French 10	91
French 20	92
French 30	93
French 31	93
German 10	93
German 20	94
German 30	95
Latin 10	96
Latin 20	96
Latin 30	96
Ukrainian 10	97
Ukrainian 20	97
Ukrainian 30	97
Russian 10, 20, 30	98

12. HEALTH AND PERSONAL DEVELOPMENT

Health and Personal Development 10	99
--	----

13. OCCUPATIONS

Occupations 10	101
----------------------	-----

14. MUSIC

Music 10 and 11	104
Music 20 and 21	104
Music 30 and 31	104

15. ART

Art 10	105
Art 20	106
Art 30	106

16. DRAMATICS

Dramatics 10	108
Dramatics 20	108
Dramatics 30	109

17. HOME ECONOMICS

Home Economics 10	123
Home Economics 21	124
Fabrics and Dress 10	126
Fabrics and Dress 20	128
Fabrics and Dress 30	129
Foods and Nutrition 10	130
Foods and Nutrition 20	132
Foods and Nutrition 30	133

18. INDUSTRIAL ARTS

Industrial Arts Materials 10, 20, 30	135
Industrial Arts Power Mechanics 10, 20, 30	139
Industrial Arts - Graphic Communications	141
Industrial Arts - Mechanics	143
Industrial Arts General 10, 20, 30	145
Drafting 10, 20, 30	150
Arts and Crafts	151

19. VOCATIONAL COURSES

Electricity 12, 22, 32	154
Pipe Trades 12, 22, 32	155
Sheet Metal 12, 22, 32	157
Graphic Arts 12, 22, 32	158
Beauty Culture 12, 22, 32	161
Welding 12, 22, 32	162
Machine Shop 12, 22, 32	165
Building Construction 12, 22, 32	166
Automotives 12, 22, 32	167
Food Preparation 12, 22, 32	168
Commercial Art 12, 22, 32	169
Electricity 12, and Electronics 22, 32	170
Drafting 12, 22, 32	171
Auto Body 12, 22, 32	174
Production Woodworking 12, 22, 32	175
Agricultural Mechanics 12, 22, 32	176

ENGLISH

SENIOR HIGH SCHOOL ENGLISH

Objectives

It seems reasonable to expect from the study of language and literature dividends basic to almost every phase of human activity. It has been said, for example, that English contributes to individual growth and development in such disparate matters as aesthetic and spiritual values, intellectual curiosity and critical thinking, vocational competence, general enjoyment and the effective use of leisure time, that it contributes to social growth in terms of human relations and democratic citizenship.

Clearly, the English program can and should serve these broad purposes. Just as clearly, their fulfilment implies the achievement of more limited purposes relative to the communication skills: *the clear and acceptable expression of ideas in speech and writing, and the efficient recognition, interpretation, and exploration of ideas in reading and listening.*

The two categories of purpose suggested above may be termed the general and the specific aims, respectively, of the English program. They are not to be regarded as competitive, either in time or importance. The communication skills as such can be learned only within the context of broader purposes which, in turn, can be achieved only through competence in the skills themselves.

The Language Program

Although the detailed nature of language learning remains obscure, one fact is clear and another may fairly be assumed. It is clear that language is a social process: hence the importance of good models, especially contemporary. It may be assumed that language improves with study and practice: hence the importance of guided experience in speaking and writing.

The prescribed handbooks are designed to foster the analytical aspect of language study. Grammatically speaking, their approach is rather conservative. There is little doubt, of course, that a more purposeful system of grammar is being developed by the structural linguists, and that this should be introduced as appropriate text materials become available.

More systematic attention than heretofore is given to the skills of reading and of spelling. Teachers are expected to adjust these emphases to the specific needs of individual pupils or groups.

The Literature Program

In pursuit of the broader outcomes of literature the teacher should seek to extend the student's acquaintance with writings of high quality, and to heighten his standards of appreciation. The first of these tasks implies selection from various times and places — including twentieth-century Canada. The second implies that the literary standards of most high school students may not immediately (or ever) approximate those of the literary critic. The teacher should, of course, recognize that "the literary experience" in our time comes not only from books but from periodicals, discs, tapes, radio and television.

Attention to the improvement of reading and listening skills as such should constitute a developmental or remedial emphasis in every English program.

Individual Differences

For a variety of reasons, students differ in linguistic capacity. This means that the teacher must consider the strengths and the limitations of each pupil as he works towards the highest achievement in communication for all.

In the hands of the resourceful teacher the approved text or texts should be a major instrument in reaching the goals of the course. It is recognized, however, that the variety of materials now approved is insufficient to meet the needs of all students; and the Subcommittee on Senior High School English is continuing to search for additional materials. At the present time, for example, several new texts and references are being used experimentally in a number of Alberta senior high schools. Those which meet favor will, as soon as possible, be added to the approved lists.

ENGLISH 10

The content of this course comprises language and literature in the proportion of sixty per cent language and forty per cent literature: it is intended, however, that the course be treated as a unit.

Course Materials

McMaster and McMaster: *Creative Composition*
A suitable dictionary

Corbin, Perrin and Buxton: *Guide to Modern English*, Gage
(Use of a handbook is optional)

Boyd, ed. *Creative Living*, Book Four, Gage
Additional material used to meet the special needs of a student group
(e.g. selections from anthologies, periodicals, newspapers, pamphlets, recordings, tapes, radio and television plays).

Course Content

The order of the topics given below is not mandatory and may be changed by any teacher for justifiable reasons, but teachers are reminded that students transferring from one school to another may experience considerable difficulty if the changes made are very extensive.

A. Language Content of the Course

Text: McMaster and McMaster: *Creative Composition*

1. Chapter XII Develop Ideas for Your Reader

- (a) Picture the events
- (b) Outline the steps
- (c) Give descriptive details
- (d) Use statistical details
- (e) Define terms
- (f) Give illustrations or examples
- (g) Make a comparison
- (h) Show a contrast
- (i) Use repetition effectively
- (j) Explain cause or effect

2. Chapter XII Build a Supply of Words

- (a) Use your dictionary intelligently
- (b) Build your vocabulary by means of word families
- (c) Build your vocabulary by means of synonyms, antonyms and homonyms
- (d) Build our vocabulary by means of prefixes, roots and suffixes
- (e) Do not misuse words
- (f) Do not misspell words

- (g) Study the defining of words to gain clarity and exactness
- (h) Study the denotation, connotation, and sound of words to gain effectiveness
- (i) Write a precis 1
- (j) Write a precis 2
- (k) Write a precis 3
- (l) Write a precis 4

3. Chapter XIV Improve Your Sentences

- (a) Vary the structure of your sentences
- (b) Use gerunds and infinitives correctly
- (c) Use participles to secure variety and force
- (d) Express parallel thoughts in parallel form
- (e) Please your reader by writing numbers properly
- (f) Please your reader by using abbreviations correctly

4. Chapter XVI Learn to Speak Effectively

- (a) Improve your voice and manner
- (b) Improve your conversation
- (c) Discuss intelligently
- (d) Learn how to prepare a speech
- (e) Learn to speak without formal preparation

5. Chapter XIX Write Creative Letters

- (a) Write natural, vivid, interesting, friendly letters
- (b) Write comforting letters of sympathy
- (c) Write correct formal and informal invitations and replies
- (d) Write sincere, pleasant, enthusiastic letters of gratitude
- (e) Write clear, concise, exact telegrams, cablegrams, day letters, and night letters
- (f) Write effective letters of application
- (g) Write clear, courteous, concise, correct, dignified business letters of complaint, request, order, inquiry, information, and instruction.

B. Literature Content of the Course

Text: *Creative Living Book Four* (an anthology of poems, essays, short stories and plays) is organized into thematic units under the following headings:

- Unit I —The Individual
- Unit II —Humanity
- Unit III —Love and Affection
- Unit IV —Appreciation
- Unit V —Creative Living

The following analysis of the content indicates the variety of offerings the text provides for the teacher; the figure in parenthesis indicates the number of selections for the category.

1. **Type**—Short story (33), character sketch (5), biography (3), anecdote (9), essay (12), various prose (7), play (1), radio play (1), sonnet (11), lyric (28), ode (4), elegy (8), epic (3), ballad (7), various poems (39), others.
2. **Region**—Anywhere (64), U.S.A. (14), Southeast U.S.A. (3), New England (6), North America (4), South America (2), Middle East (4), England (21), Wales (2), Scotland (5), Russia (3), China (2), India (2), Germany (2), Canada (26), Italy (2), others.
3. **Chronology**—20th century (121), 19th century (28), 18th century (2), 17th century (5), 16th century (4), Medieval (5), B.C. (7).

Study of the short story in some detail:

- (a) purpose or theme
- (b) structure
- (c) characters

Although all types of literature should be included in the course (essay, short story, poetry and drama), the limitation of time makes it impossible to cover all of the selections in the text. The teacher should choose those selections which best meet the needs and interests of his class.

Memory Work

Seventy-five to one hundred lines. A portion of the poetry required should be selected by the student.

C. Grammar

A review of Grade IX grammar with emphasis on the application of grammatical principles to English composition.

D. Improvement of Spelling

Remedial or developmental spelling in terms of individual and group needs. (Teacher's Reference: Bowden: *Basic Speller*, Macmillan).

E. Leisure Reading

The reading of five to seven books per year is considered a reasonable goal for the average student. These books may be chosen by the student from the prescribed list, or they may be books considered acceptable by the teacher. Teacher's Reference: T. W. Martin: *Guidebook for Creative Living, Four*, Gage.

Course Materials:

Gray, Hach, Meade and Waddell. *English for Today II*, Longmans.
Corbin, Perrin and Buxton. *Guide to Modern English*, Gage.
A suitable dictionary.

Course Content

The order of the topics given below is not mandatory and may be changed by any teacher for good reason, but teachers are reminded that students transferring from one school to another may experience considerable difficulty if the changes made are very extensive.

A. Text Outline

1. Report Writing

- (a) The importance of knowing how to prepare reports
- (b) Library organization (classification of books, card catalogue)
- (c) Reference aids (indexes, guides, encyclopedias, yearbooks, almanacs, general references)
- (d) Report making (choosing the subject, limiting or expanding the subject, gathering material, sentence and topical outlines, types of beginnings and endings, development of the report, revision, the finished product)
- (e) Oral reports
- (f) Reporting on books (novel, biography, other non-fiction, fiction)

2. Expository Articles

- (a) Definition of exposition
- (b) The paragraph in exposition (topic sentence, transition, kinds of developmental paragraphs, methods of developing the paragraph, introductory and concluding paragraphs)
- (c) Kinds of exposition (practical, artistic)
- (d) Writing exposition (selecting, limiting, analysing the subject, gathering and organizing the material, writing and rewriting).

3. Vocabulary

- (a) The importance of vocabulary study
- (b) Reference books (dictionary, thesaurus, special aids)
- (c) Roots, prefixes, suffixes
- (d) Synonyms, antonyms, homonyms
- (e) Increasing vocabulary (reading, experience)
- (f) Concrete and connotative words
- (g) Clichés
- (h) Figures of speech
- (i) Using words effectively
- (j) Levels of usage

4. Newspaper Reading

- (a) Desirable newspaper reading habits
- (b) Functions of newspapers (publishing news, commenting on news, entertaining readers, helping readers, publishing advertising)
- (c) Analysis of newspaper reading habits
- (d) Definition of news
- (e) News gathering (reporters, press associations, syndicates, correspondents)
- (f) News writing (writing formulas, news slanting, use of pictures)
- (g) Publicity and advertising
- (h) Differences between editorials and columns
- (i) Features

5. Writing for the School Newspaper

- (a) Getting the news (recognizing news, interviews, various sources of news)
- (b) The news story (types of leads, developing the story)
- (c) Special news stories (interviews, feature)
- (d) Editorials (editorial column)
- (e) Newswriting style

6. Speaking and Listening

- (a) Review of characteristics of good speech
- (b) Effective listening
- (c) Special speeches (announcement, promotion talk, introduction of speaker)
- (d) Discussion
- (e) Oral report (explanations, directions, instructions, introductions)
- (f) Listening to oral reports (attention, interpretation)

7. Business English

- (a) Mechanics of good English (punctuation, abbreviation, use of numbers, hyphenation)
- (b) Format (spacing, indentation, block and modified block form, open and closed punctuation)
- (c) Parts of the business letter (heading, inside address, salutation, complimentary close, body, signature)
- (d) Addressing the envelope (spacing, form)
- (e) Kinds of business letters (orders, complaints, adjustments, applications, letters of appreciation)
- (f) Business English
- (g) Modern trends in business English

B. Grammar

Consistent use of the *Guide* or the *Handbook* in applying grammatical principles to English composition.

C. Spelling

Remedial or developmental spelling in terms of individual and group needs. (Teacher's Reference: Bowden, *Basic Speller*, Macmillan).

ENGLISH LITERATURE 20

Course Materials:

Buxton, ed. *Creative Living, Book Five*, Gage.

One of *Julius Caesar*, *The Tempest*, or *Richard II*.

Additional material used to meet the special needs of a student group (e.g. selections from anthologies, periodicals, newspapers, pamphlets). Recordings, tapes, radio and television plays.

A. Outline of Text (*Creative Living, Book Five*)

Creative Living, Book Five (an anthology of poems, essays, short stories and plays) is organized into thematic units under the following headings:

Unit I —Individuals

Unit II —Our Community

Unit III —Our Surroundings

Unit IV —Action, Thrills and Laughter

Unit V —Toward Creative Living

The following analysis of the content indicates the variety of offerings the text provides for the teacher; the figure in parenthesis indicates the number of selections for the category.

1. *Type* — Short story (23), character sketch (2), biography (4), essay (23), various prose (10), play (3), sonnet (12), lyric (29), ode (11), dramatic monologue (2), narrative poems (3), ballad (6), others.
2. *Region* — Anywhere (76), U.S.A. (30), Southwest U.S.A. (3), New England (4), Middle East (3), England (25), Scotland (6), Europe (8), India (2), Russia (1), Canada (18).
3. *Chronology* — 20th century (130), 19th century (25), 18th century (6), 17th century (5), 16th century (1), Medieval (4), B.C. (4).

B. Shakespearean Play—Introduction to Shakespearean drama

(One of *Julius Caesar*, *The Tempest*, or *Richard II*)

C. Leisure Reading—(See following notes on Leisure Reading)

The reading of ten books per year is considered a reasonable goal for the average student. These books may be chosen by the student from the prescribed list, or they may be books considered acceptable by the teacher. Teachers' Reference: Buxton, *Guidebook for Creative Living, Five*, Gage. Leisure reading is an integral part of the senior high school literature course.

The main objectives of this part of the program are:

1. To establish and develop the reading habit.
2. To provide enjoyment through reading.
3. To develop literary taste, especially in relation to the longer literary work.

Requirements of the Leisure Reading Program in Literature 20

1. From 15 to 25 per cent of the evaluation of the student's total performance in English 20 should be based on the leisure reading program.

2. The student's reading should have the qualities discussed below:

- (a) *Variety* — Students should read within *five categories* each year, the categories being those given in *Invitation to Read*, the School Book Branch catalogue which lists the titles of books approved for the leisure reading program. *Not more than four books* should be read within one category unless the student is also reading widely in other areas.
- (b) *Scope* — Ten books per year is a reasonable goal for the average student. However, as classes and students vary greatly, it is unrealistic to set a specific number for all Alberta senior high school students. Some students may read more than ten books per year; some may read fewer.
- (c) *Quality* — A student's reading cannot be aimed at quantity alone. The following "levels" are outlined for student and teacher guidance. Students should work 'up the levels' during their high school years.

Level One (lowest level) — Emphasis on action, easy vocabulary, (e.g. *Black Stallion Returns*, *Seventeenth Summer*).

Level Two (middle level) — Well-developed style, more complex plot structure, larger number of developed characters than those of level one (e.g. *Dr. Jekyll and Mr. Hyde*, *Good-Bye Mr. Chips*, most historical novels).

Level Three (highest level) — More highly-developed and consistent theme, shift in emphasis from action to character development, more complex plot, universality of the experience, realistic setting and atmosphere, philosophic ideas (e.g. *Oliver Twist*, *Lord Jim*, *Madame Curie*).

Course Materials:

Coutts, Chalmers, Meade, Salter and Waddell. *Thought and Expression*, Longmans.

Hamlet or Macbeth.

Perrin, Corbin and Buxton. *Guide to Modern English*, Gage.
A suitable dictionary.

Course Content:

A. Text Outline

1. Reading

- (a) Derivation of meaning from context
- (b) Kinds of reading (reading for impression, opinion, information, enjoyment)
- (c) Style analysis (realization of the norm, variations from the norm, effect of these variations)

2. Studying Magazines

- (a) Purpose of magazines
- (b) Classification according to paper stock and to appeal
- (c) Influence of magazines
- (d) Magazine advertising
- (e) Evaluating magazines

3. Studying and Writing the Essay

- (a) Types of essays (informal, personal)
- (b) Writing essays (outline, point of view, arrangement and choice of details, style, title, introductions, revision)
- (c) Types of personal essays (autobiographical, reflective, characterization, nature, satirical)
- (d) Essays for reading, study and enjoyment

4. Reading, Studying and Writing the Short Story

- (a) Definition of the short story
- (b) Essentials of a short story (character, setting, plot, theme)
- (c) Writing a personal incident
- (d) Planning a short story
- (e) Point of view (physical, mental, emotional)
- (f) Elements to consider in planning action (motivation, conflict, complication, suspense, climax, denouement, outcome)
- (g) Writing a synopsis
- (h) Title selection
- (i) Writing a short story (beginning, writing dialogue, ending)
- (j) Short stories for reading, study and enjoyment

5. Appreciating Drama

- (a) History of drama
- (b) Play structure (exposition, rising action, climax, denouement and outcome)

- (c) Dialogue interpretation
- (d) Types of plays (tragedy, comedy, melodrama, farce, fantasy, folk play, thesis play, pageant masque)
- (e) Dramatization of a short story
- (f) Writing a one-act play (optional)
- (g) The radio play
- (h) Plays for reading, study and enjoyment.

6. **Appreciating Poetry**

- (a) Reading and enjoying poetry
- (b) Comparing poetry and prose
- (c) Poetic language (figures of speech, rhythm, rhyme, assonance, alliteration, onomatopoeia, form)
- (d) Poems for reading, study and enjoyment.

B. Grammar

Consistent use of the *Guide* or the *Handbook* in applying grammatical principles to English composition.

C. Leisure Reading

The reading of ten books per year is considered a reasonable goal for the average student. These books may be chosen by the student from the prescribed list, or they may be books considered acceptable by the teacher.

As the program should provide for extension and enrichment of the literary content of the course, the student must not confine himself too narrowly in his book choices. He should be encouraged to venture widely into the fields opened by the study of literary forms (short story, essay, drama and poetry).

ENGLISH LANGUAGE 21

Course Materials:

No assigned text.

Material listed in the *Curriculum Guide*.

English Language 21 is an elective designed for Grade 11 and 12 students who are particularly talented or interested in writing, and only those who have demonstrated proficiency in written expression should be admitted to the class. As much individual assistance and instruction is required of the teacher, the size of the class should be limited to twenty students or fewer. In addition, as no textbook is assigned for the course, a classroom library of books and pamphlets must be made available to the teacher if the course is to be taught effectively.

Course Content:

The course covers five content areas: journalism, the essay, the short story, drama and poetry. Teachers may deal with these units in any order or way which is productive of results: but at least some aspect of *all five areas* should be discussed at some time during the school term.

As some of the material discussed in English Language 21 is also found in the compulsory courses, teachers are asked to guard against uneconomical overlapping in their own particular school situations.

UNIT ONE: JOURNALISM

A. The Writing of a News Story

1. Definition of news
2. The differences between literary and news writing
3. The news story (including the lead).

B. Newswriting Style

1. Use of standard good English
2. Specific characteristics of newswriting style.

C. The Writing of a Variety of News Stories

1. General news story
2. Speech report
3. Interview story
4. Sportswriting
5. Advance and follow-up stories
6. Feature stories.

D. Editorial Writing

1. Editorials
2. Columns
3. Letters to the editor.

E. Journalism as a Profession

1. Newspaper writing
2. Radio and television writing
3. Magazine writing
4. Advertising
5. Public relations.

UNIT TWO: THE ESSAY

A. Definition of the Essay

1. Historical development of the essay form
2. Variety of forms.

B. The Informational Essay

1. The research essay
2. The critical essay.

C. The Personal Essay

1. Autobiographical
2. Reflective
3. Characterization
4. Nature
5. Satirical.

UNIT THREE: THE SHORT STORY

A. Leading Up to the Short Story

1. The journal (or diary)
2. The personality or character sketch
3. The plot.

B. Developing the Short Story

1. The plot outline:
 - (a) An introduction (to attract the reader)
 - (b) Details of the story (in point form)
 - (c) A conclusion (which satisfies the reader)
2. Plot analysis:
 - (a) Situation (time, place, characters, mood, circumstances)
 - (b) Rising action
 - (c) Climax.
3. The twist (the unexpected turn near the end of the story)
4. Conflict.

UNIT FOUR: DRAMA

A. Leading Up to the Writing of Drama

1. The writing of short scripts (e.g. TV and radio commercials, announcements for use on an intercom)
2. The writing of five- or ten-minute scripts (e.g. informal family discussion)
3. The writing of longer scripts (e.g. a school assembly program, a documentary)

B. Dramatic Writing

1. The writing of dialogue
2. Stage movement
3. The one-act play:
 - (a) Plot
 - (b) Character
 - (c) The unities of time and place
 - (d) Stage business or action
 - (e) The dialogue
 - (f) Properties.

C. Radio and Television Writing

1. The special needs of radio writing
2. The special needs of television writing.

UNIT FIVE: POETRY

A. The Writing of Light Verse

1. Limerick
2. Rhyming couplets
3. Other forms

B. The Writing of Poetry

1. The definition of poetry
2. Poetic form
3. The haiku
4. The cinquain
5. The triolet
6. A variety of forms.

C. The Group Composition (a poem composed by the class or a group of students).

ENGLISH LITERATURE 21

Course Materials:

Inglis, Stauffer and Larson, *Adventures in English Literature*, Gage.

Additional material to supplement the material of the text.

Recordings, tapes, radio and television plays.

English Literature 21 is an elective designed for students in Grades XI and XII who show special interest and reasonable competence in English literature. The objectives are:

1. To increase the student's power to enjoy good literature through both extensive and intensive study of representative works by the best writers.
2. To develop in the student a sense of literary perspective.
3. To assist the student to relate literary works in a mature way to the society that produced the works.

Course Content:

The content of Literature 21 is indicated in a general way by the prescribed text, but individual teachers may place the emphasis differently according to the extent of their own literary scholarship, to that of their students, and to the supplementary materials available.

The sequence of the course is that followed in the text.

Adventures in English Literature begins with several short essays by recent British and Canadian authors. Following this introductory material are eight sections giving, in chronological order, the commonly-recognized periods of English literary history. It should be noted that these periods overlap somewhat, and that the division of the continuous historical process in this way is largely arbitrary; however, the historical and social introductions given in the text form a necessary skeleton for the course, and students should be familiar with their content. Some periods, authors and literary types are better represented than others. (The text is deficient, for example, in the Medieval English section where the literature given is in modern paraphrase rather than in the words of the original.) For this reason teachers may need to supplement certain parts of the text.

Not all of the material given in each section need be covered, and not all of the material covered should be given the same attention. Instead, an intensive study of one or more literary forms (e.g. the drama, the essay, the lyric, or the short story) should be undertaken by the individual student or the class as a whole.

As many Grade XII students study *Macbeth*, the Literature 21 and the English 30 courses should be articulated in the drama section. If the drama is chosen for intensive study, it is recommended that the approach given for the study of *Macbeth* (on page 193 of the text) be used for a similar study of the modern plays in the latter section of the book.

READING 10

Objective:

Reading 10 is designed to:

1. Improve the reading skills common to the many types of reading
2. Give instruction and practice in the reading skills specific to the study materials of the language arts, the social studies, mathematics and the sciences, and
3. To encourage and increase reading for enjoyment and appreciation.

Course Materials:

According to the needs or interests of his students and his own professional background, the teacher should use *some or all* of the following:

Basic Materials:

Smith, N.B., *Be a Better Reader, Books IV, V and VI* (workbooks organized in difficulty sequence).

Science Research Associates, Inc., *Reading Laboratory, IVa*.

Science Research Associates, Inc., *Reading for Understanding*.

These materials should be used, along with the students' authorized subject area textbooks, to answer the first two-named objectives listed above.

Supplementary Materials:

Magazines and Newspapers.

Creative Living, IV (selections not taken in English 10 course).

Practical English (weekly published by Scholastic Publications, New York, New York).

Novel or Biography.

Leisure Reading Books.

Some, or all, of the above materials should be used in answer to the last-named objective listed above.

Course Content:

The three objectives of the course should receive comparatively equal portions of instructional time, but need not be developed in any set time sequence.

ENGLISH 23 AND ENGLISH 33

Objectives

Although the general objectives of these courses do not differ from those of other English courses (see page 1) the following specific objectives is particularly important for English 23 and English 33:

To increase students' interest and skill in reading, in listening, in understanding literature, and in expressing ideas clearly, accurately, and effectively in speech and writing.

Course Material and Content

The content of these courses comprises language and literature in the proportion of 60% language and 40% literature; it is intended, however, that each course be treated as a unit.

A. Literature

1. English 23

CREATIVE LIVING: BOOK 5: Buxton

One play to be chosen from the following:

Julius Caesar: Shakespeare

King Richard The Second: Shakespeare

Tempest, The: Shakespeare

Anne Frank: The Diary of a Young Girl: Frank

Inherit the Wind: Lawrence, T. & Lawrence L.

My Fair Lady: Lerner and Lowe

Pygmalion: Shaw

Raisin in the Sun, A: Hemsberry

One novel to be chosen from the following:

Huckleberry Finn: Mark Twain

Light in the Forest: Richter

Mutiny on the Bounty: Nordoff & Hall

Pearl, The: Steinbeck

Shane: Schaefer

Leisure Reading

Ten to twenty percent of the evaluation of the students' performance should be based on leisure reading.

2. English 33

THOUGHT AND EXPRESSION: Coutts, Chalmers, Meade, et al

One play to be chosen from the following:

Hamlet: Shakespeare

Macbeth: Shakespeare

Four Plays of Our Time: Voaden

One novel to be chosen from the following:
Bridge of San Luis Rey, The: Wilder
Cry, The Beloved Country: Paton
Ethan Frome: Wharton
Lord of the Flies: Golden
Oxbow Incident: Van Tilburg Clark

B. Language

English 23 and English 33

Guide to Modern English: Corbin, Perrin & Buxton

Thought and Expression: Coutts, Chalmers, Meade, et al (English 33 only)

The following grid lists a variety of worthwhile language activities. It is not expected that a class will engage in every activity or attempt to work through the grid item by item; some activities, however, should be chosen from each of the main headings: logical thinking, writing, linguistics, speech, listening, observing, and demonstrating. The Curriculum Guide contains many useful suggestions for the handling of these courses.

ENGLISH 23 AND 33 — GENERAL LANGUAGE ACTIVITIES

A. Logical Thinking

CONTENT	ENGLISH 23	ENGLISH 33
1. Organization Skills Needed for Reading	<ol style="list-style-type: none"> 1. Selection of main and supporting ideas in selections read. 2. Review of notetaking skills. 	<ol style="list-style-type: none"> 1. Inferential reading skills. 2. Use of a variety of reference materials for report preparation.
2. Organization Skills Needed for Writing and Speaking	<ol style="list-style-type: none"> 1. Preparation of notes for speaking activities. 2. Topical outline. 3. Deductive and inductive reasoning. 	<ol style="list-style-type: none"> 1. Sentence outline. 2. Final formal review of notetaking skills. 3. Review of reasoning techniques.
1. One-Sentence Compositions	<ol style="list-style-type: none"> 1. Answers to examination questions (language, literature, and other subjects). 2. Giving explanations. 3. Character sketches (from the literature program). 4. Caption to accompany an illustration (e.g. news photograph). 	<ol style="list-style-type: none"> 1. Continuation of English 23 activities. 2. Giving directions. 3. Answers to dictated questions. 4. Description of an article (e.g. for business letter of inquiry).
2. Three-Sentence Compositions	<ol style="list-style-type: none"> 1. Summary of theme in literature selection. 2. Giving directions. 3. Summary of news story or magazine article. 	<ol style="list-style-type: none"> 1. Continuation of English 23 activities. 2. Summary of radio and television programs. 3. Character analysis (use of literature selections). 4. Description of a person (as might be included in a personal letter).
3. Paragraph Types	<ol style="list-style-type: none"> 1. Giving directions. 2. Explanations. 3. Paragraphs developed by use of an illustration. 	<ol style="list-style-type: none"> 1. Review of paragraph types taken in previous course. 2. Paragraphs developed by examples. 3. Argumentation. 4. Criticism.

B. Writing

4. Précis	<ol style="list-style-type: none"> 1. Newspaper articles. 2. Magazine articles. 3. Sections of social studies textbooks. 4. Selections from other textbooks. 	<ol style="list-style-type: none"> 1. Sections of science textbooks. 2. Literature textbook selections. 3. Technical report summaries. 4. Selections from other textbooks.
5. Reports and Short Essays	<ol style="list-style-type: none"> 1. <i>Informative</i> - book reviews, recorded observations of demonstrations. 2. <i>Personal</i> - on subjects which stress personal observation and individual interests (occasionally, read orally to class or class group). 3. Approximately 200 words. 	<ol style="list-style-type: none"> 1. <i>Informative</i> - job reports, vocational information, radio and television program reports. 2. <i>Personal</i> - on subjects which stress personal observation and individual interests. 3. Approximately 200 words.
6. Business Correspondence (adapted to students' programs — e.g. business, vocational, general)	<ol style="list-style-type: none"> 1. Announcements (for office use, newspaper item, etc.) 2. Letter of Application. 3. Club meeting report for publication. 4. Short memos from dictation. 5. Memo for a telephoned message. 	<ol style="list-style-type: none"> 1. Letter of complaint, rejection, etc. 2. Minutes. 3. Dictation of fairly lengthy messages, reports.
7. Social Correspondence	<ol style="list-style-type: none"> 1. Etiquette of letter-writing for social occasions. 2. Social notes. 3. Letters of apology. 	<ol style="list-style-type: none"> 1. Letters of condolence and congratulation.
8. Mass Media	<ol style="list-style-type: none"> 1. Study of Newspapers (news story, sources of news, editorial page, non-news items). 2. Study of Magazines (types of magazines, purposes, style of writing, illustrations). 3. Evaluation techniques. 	<ol style="list-style-type: none"> 1. Radio (uses, news broadcasting, programming, advertising). 2. Television (uses, news broadcasting, variety programs, drama, documentaries, advertising). 3. Evaluation techniques.
9. Other Forms of Modern Communication	<ol style="list-style-type: none"> 1. Telephone etiquette. 2. Letters to the editor. 3. Taped messages. 	<ol style="list-style-type: none"> 1. Form-filling tasks (e.g. job application). 2. Outlines - simple reports stressing logic of sequence and presentation. 3. Telegrams, night letters.

1. Usage	<ol style="list-style-type: none"> 1. Levels of usage (See <i>Guide to Good English</i>, Perrin, Corbin, Buxton). 2. Use of dictionary for usage problems. 	<ol style="list-style-type: none"> 1. Final review of usage. 2. Regional dialects.
2. Spelling	<ol style="list-style-type: none"> 1. Final formal review of spelling (after diagnosis). 2. Use of dictionary for spelling aid. 3. Specialized vocabulary. 4. Sentence dictation. 	<ol style="list-style-type: none"> 1. Sentence dictation. 2. Expectation of spelling error-free work.
3. Punctuation	<ol style="list-style-type: none"> 1. Final formal review of punctuation (after diagnosis). 2. Special reference to uses of comma, semi-colon, colon. 3. Dictation. 	<ol style="list-style-type: none"> 1. Expectation of punctuation error-free work.
4. Vocabulary	<ol style="list-style-type: none"> 1. Writing of definitions. 2. Emphasis on uses of dictionary. 3. Antonyms and synonyms. 4. Diacritical marks. 5. Contextual analysis (determination of meaning by reference to context). 6. Denotation and connotation. 	<ol style="list-style-type: none"> 1. Specialized vocabularies - Business Automotives. 2. Use of <i>Roget's Thesaurus</i>. 3. Structural analysis (common prefixes, suffixes, roots). 4. Multiple meanings.
5. Semantics	<ol style="list-style-type: none"> 1. History of word origins. 2. Slanted news. 3. The language of advertising. 4. Vocabulary of news reporting. 5. Symbols. 	<ol style="list-style-type: none"> 1. Loaded words. 2. Television commercial analysis. 3. Analysis of a variety of messages (e.g. billboards, union membership, solicitation, job descriptions, etc.).
1. Group Discussion	<ol style="list-style-type: none"> 1. Group discussion as opposed to informal conversation. 2. Panel discussion (small planned group discussion followed by audience participation). 	<ol style="list-style-type: none"> 1. Symposium (three or four set speeches, panel discussion among the speakers, remarks and questions from the audience). 2. Forum (one or more speakers on a specific subject followed by questions and comments by the audience).

D. Speech

C. Linguistics

2. Report Giving	<ol style="list-style-type: none"> 1. News and magazine articles review. 2. Book reviews. 3. Use of a brief outline. 	<ol style="list-style-type: none"> 1. Radio and television program reviews. 2. Extempore report giving. 3. Report giving without notes. 4. Integration with social studies, science, and other like subjects.
3. Speech Making	<ol style="list-style-type: none"> 1. Prepared speeches - persuasion, introductions. 2. Demonstrations using non-verbal materials (e.g. use of a chart to describe a process, speech accompanied by reference to a machine). 	<ol style="list-style-type: none"> 1. Extemporaneous speech. 2. Prepared speeches - explanations, argumentation.
4. Parliamentary Procedure	<ol style="list-style-type: none"> 1. Final review of procedure. 2. Mock club meetings. 3. Practice with club participation tasks (e.g. reading minutes, reading or giving committee reports). 	<ol style="list-style-type: none"> 1. Mock Parliament. 2. Observation of adult-level parliamentary procedure in action (e.g. field trip to Legislative Assembly, visit to political open forum). 3. Preparation for trade union meeting participation.
5. Interviews	<ol style="list-style-type: none"> 1. Interviewing for news-gathering tasks. 2. Socio-drama - job interview. 	<ol style="list-style-type: none"> 1. Impromptu as well as prepared interviews. 2. Demanding job interviews. 3. Realistic interviewing situations (e.g. interviews with local businessmen).
6. Oral Interpretation	<ol style="list-style-type: none"> 1. Excerpts from newspapers and magazines. 2. Modern plays. 3. Discussion of literature selections. 4. Reading of plays. 	<ol style="list-style-type: none"> 1. Radio and television drama. 2. Short stories. 3. Poems.
7. Use of Modern Technologies	<ol style="list-style-type: none"> 1. Self-evaluation techniques making use of language laboratories. 2. Dictaphone dictation. 3. Commentary for filmstrip projection. 	<ol style="list-style-type: none"> 1. Continuation of activities begun in English 23. 2. Tape recording of material suitable for radio or television broadcasts.

1. Note-Making	1. Aid in organization of notebook. 2. Teacher-lecture of note-taking. 3. Guest speakers. 4. Note-taking during speeches of class members.	1. Use of taped lectures. 2. Summaries of radio news broadcasts. 3. Some repeated experiences of English 23.
2. Listening	1. Listening to teacher-lecture without note-taking. 2. Listening to instructions. 3. Panels, debates. 4. Listening to conversation (e.g. on bus).	1. Listening to radio and television broadcasts without note-taking. 2. Political speeches (summarized, evaluated). 3. Symposia, forums.
3. Use of Modern Technologies	1. Recordings. 2. Tapes. 3. Films.	1. Radio broadcasts evaluated. 2. Same media as used for English 23.
1. Observations of Life Situations	1. Reporting on observations made in school or home.	1. Reporting on observation made in community (e.g. on the bus, in coffee counter, supermarket, garage).
2. Non-verbal Communication Forms	1. Observation of detailed pictures, diagrams, illustrations. 2. Newspaper and magazine advertising. 3. Charts. 4. Pantomime.	1. Evaluation of television programs. 2. Television advertising. 3. Movie club. 4. Review and extension of English 23 skills.
3. Student Demonstrations	1. Construction and demonstration of models. 2. Slide projection with commentary. 3. Showing of student-made movies.	1. Construction and demonstration of displays (including bulletin board).
4. Miscellaneous	1. Description and observation of models. 2. Work with computers.	1. Work with a variety of modern machines.

SOCIAL STUDIES

General Objectives

"The general objectives of social education is to develop citizens who (1) understand our changing society; (2) possess a sound frame-work of values and ideals which indicate what ought to be, set goals for the individual and give direction to his actions; and (3) have the necessary competence — skills and abilities — to participate in group living in such ways as to make changes in the direction of the desired values and ideals."*

SOCIAL STUDIES 10

Outline of Content

UNIT ONE

THE CITIZEN AND LOCAL GOVERNMENT

1. Introduction

- (a) Functions of government.
- (b) Levels of government.

2. Why We Need Local Government

- (a) A practical device.
- (b) Training for electors and elected representatives.
- (c) Provides flexibility to meet varying local conditions.

3. How Local Government is Organized to Meet Our Needs

- (a) Local bodies before 1905; Alberta organized, 1905.
- (b) The Executive and the Legislative function in local government.
- (c) Municipal corporations.
- (d) School boards.
- (e) Other local bodies.
- (f) Democratic control and administrative efficiency.

4. Finance, the Major Problem

5. The Judicial Function

(Law enforcement at the local level).

UNIT TWO

CONSUMER EDUCATION

Suggested Time:

6 to 8 weeks.

Text

Consumer Education: Brown, N.E.

1. Credit Used by Consumers

- (a) Meaning of credit.
- (b) Credit requirements.
- (c) Classes of credit.

*Quillen and Hanna, *Education for Social Competence*, Scott, Foresman and Co., p. 55.

- (d) Types of consumer credit.
- (e) Elements that determine whether to use cash or credit.
- (f) How typical service charges are worked out.
- (g) Sources for small loans.

2. Savings

- (a) Types of real savings.
- (b) How credit can be used as a form of savings.

3. Measuring and Using Credit with Wisdom

- (a) Consideration of amount of credit obligations.
- (b) Consideration of the amount of down payment.
- (c) Length of time to pay off credit.
- (d) Conditions that affect credit terms.
- (e) Adding second purchases.

4. Making a Budget

- (a) Advantages of budgeting.
- (b) Disadvantages of budgeting.
- (c) Steps in preparing a budget.
- (d) Using credit when there is cash in the bank.

5. Legal Problems for Consumers

- (a) Legal problems involving cash customers.
- (b) Legal problems involving credit customers.

6. Becoming More Intelligent Consumers Through Wise Selection

- (a) Making a wise selection of goods — by judging quality, by judging bargains, through close examination of packages and through discriminate buying.
- (b) Unethical schemes (to avoid).

7. Advertising

- (a) Purpose.
- (b) Kinds of sales appeal used in advertising.
- (c) Cost of advertising.
- (d) Dishonest advertising.

8. Consumers' Aids

- (a) Government agencies.
- (b) Private agencies.
- (c) Magazines.

UNIT THREE

OUR HERITAGE FROM THE PAST

1. From the Beginning to the Greeks

(3 weeks)

- (a) The beginnings of mankind.

- (b) Some early civilizations.
 - i. Mesopotamia.
 - ii. Egypt.
 - iii. Phoenicia.
 - iv. The Hebrews.
 - v. Persia.
- (c) The heritage from the early civilizations, in communications, mathematics, technology and religion.

2. The Greeks

(6 weeks)

- (a) Survey of Greek history from the formative period to Macedonian conquest.
- (b) Life in Periclean Athens.
- (c) The heritage from Greece, in philosophy, government, literature, art, science and sports.

3. The Romans

(6 weeks)

- (a) Survey of Roman history from the early peoples of Italy to the decline of the Empire.
- (b) Life in Rome, at the end of the Republic, and at the height of the Empire.
- (c) The heritage from Rome, in government, law, science and aesthetics.

UNIT FOUR and UNIT FIVE

Suggested Time

(4 weeks each)

These two units may be chosen from a suggested list of eleven electives. Some of them represent an extended treatment of material discussed in Unit III. Others are more particularly related to contemporary social living.

Outlines of Suggested Topics

ELECTIVE A

LIFE IN THE MIDDLE AGES

1. Political Organization

- (a) Breakdown of central authority after the fall of Rome.
- (b) Consolidation of authority.
- (c) Rise of Feudalism.

2. Economic Features of the Middle Ages

- (a) Results of breakdown of Roman Empire.
 - i. Decline of trade and growth of self-sufficiency.
 - ii. Land as the basic form of wealth.
 - iii. Revival of trade.
- (b) Impact of Crusades.
- (c) The rise of the Middle Class.
 - i. Emergence of merchant group.
 - ii. Domestic industries and apprenticeship system.
 - iii. Organization for trade.

3. Cultural Pattern of the Middle Ages

- (a) Establishment of Christianity as state religion of Rome.
- (b) The unifying influence of the church in political, educational and social matters.
- (c) Other cultural influences associated with architecture, painting, literature, rise of universities and new ideas in science.

ELECTIVE B

FAMILY LIVING

- 1. Development as a Social Institution and Nature of Functions in Early Cultures.**
- 2. Significance of Family Organization to: The Parents, Children and the Nation.**
- 3. Problems of the Modern Family:**
 - (a) Obligations concerning marriage relationships.
 - (b) Housing.
 - (c) Development of social attitudes.
 - (d) Moral and religious values.
 - (e) Education: aims, kinds, and financial assistance.
 - (f) Recreational activities:
 - i. Government agencies: Cultural Affairs, Canada Council, CBC.
 - ii. Commercialized recreational service.
 - iii. Athletics: importance, personal, school and community.
 - (g) Effect of urbanization.
 - (h) Social Welfare.
 - i. Local level.
 - ii. Provincial and federal levels.
 - (i) Disruptive economic and social pressures.

ELECTIVE C

AESTHETIC AND CULTURAL VALUES

1. Early Art

- (a) Pictures, carvings — media.
- (b) Perspective.
- (c) Development of sculpture.
- (d) Development of architecture:
 - i. Pyramids, columns, vaulted roof, arch, buttress.
 - ii. Examples in various countries.
 - iii. Gothic architecture of Middle ages.
- (e) Brief reference to pre-Renaissance and Renaissance Periods — art and architecture.

2. Development of Modern Trends

- (a) Change to worldly themes.
- (b) Surrealism.
- (c) Abstract expression.

3. Modern Encouragement to Art

- (a) Establishment of museums and art galleries.
- (b) Establishment of community art clubs.
- (c) Government assistance to art organizations.

4. Music

- (a) Review of nature and role of music in early times.
- (b) Brief consideration of development in Renaissance period.
 - i. Relationship to the Reformation.
 - ii. New themes: sonatas, operas.
 - iii. New instruments and new arrangements.

5. Present-Day Features and Facilities

- (a) Symphonies and other musical concerts.
- (b) Encouragement to public consumption.
- (c) Maintenance of music appreciation of various ethnic groups.
- (d) Role of music in the schools.
- (e) Musical festivals and societies for instrumental, band and ballet.
- (f) Role of Cultural Affairs Branch, CBC and Canada Council.

ELECTIVE D

RELIGION AND ETHICS

- 1. Meaning of Each and their Relationship**
- 2. Characteristics of Religion**
- 3. Bases for Religious Beliefs**
- 4. Evidence and Nature of Primitive Religions**
- 5. Pagan Polytheism of Ancient Cultures**
- 6. Early Monotheistic Religions—Judaism and Zoroastrianism**
- 7. Rise of Christianity**
- 8. Areas Dominated by Other Religions**
- 9. Ideals Common to Modern Religions**

ELECTIVE E

A BACKGROUND TO CURRENT EVENTS (Contemporary World Problems)

An intensive study of about four major world problems. Rather than a brief review of isolated events it is suggested that each problem selected for study in this elective should be considered from many angles in order to gain a depth of understanding.

ELECTIVE F

DEVELOPMENT OF WESTERN LITERATURE

1. Great Writings of the Long Past

- (a) The Old Testament.
- (b) Homer.

2. Greek Literature of the Classical Past

- (a) Drama
 - i. The theatre and the chorus.
 - ii. The tragedy.
 - iii. The comedy.
- (b) Greek poetry.
- (c) Early Greek writers of history.
- (d) Writers of philosophy.
- (e) New Testament.

3. Roman Literature and the Classical Past

- (a) The comedy.
- (b) Early writers of the First Century.
- (c) The Augustan Age.
- (d) The last Roman writers.

4. Establishment of Libraries

5. Literature of the Middle Ages

- (a) Ballads.
- (b) Chronicles.
- (c) Poetry.
- (d) Miracle plays.

6. The Renaissance Period

- (a) New age of drama.
- (b) Use of the vernacular.
- (c) Development of new literary forms.
- (d) Effect of printing.

7. Nature of Contemporary Literature

- (a) Classes.
- (b) Style and content.
- (c) Purpose and influence.

8. Modern Facilities to Promote Familiarity with Literature

- (a) Libraries.
- (b) Book clubs.
- (c) Theatres.
- (d) Drama associations.
- (e) Canada Council.

ELECTIVE G
ANCIENT PHILOSOPHY

1. Nature and Origin of Early Philosophy

2. Organization of Philosophy

- (a) Early Philosophy.
 - i. Mythological explanations.
 - ii. Homer, Hesiod.
- (b) Pre-Socratic philosophers.
 - i. Thales, Anaximander, Anaximenes.
 - ii. The Pythagoreans.
 - iii. The Heracliteans
 - a. Xenophanes
 - b. Heraclitus
 - iv. The Eleatics
 - a. Parmenides
 - b. Zeno
 - v. The Atomists
 - a. Democritus.

3. Socratic Philosophy

- (a) Sophists — Protagoras, Georgias.
- (b) Socrates.
- (c) Plato.
- (d) Aristotle.

4. Hellenistic-Roman Philosophy

- (a) Stoicism (Epictetus).
- (b) Epicureanism (Epicurus).
- (c) Scepticism (Pyrrho).

ELECTIVE H
EDUCATION

1. Present Educational System for Alberta

- (a) Financial support.
- (b) Courses.
- (c) Cultural, social or vocational purposes.

2. Education in the Ancient World

- (a) Greek.
- (b) Hebrew, or
- (c) Roman.

3. Education in the Medieval World, as Given Through the Monastery, Guild or University

4. Education in Primitive Societies of Today

- (a) Nature.
- (b) Purposes.
- (c) Agencies.

5. Modern Educational Advances

- (a) State responsibility.
- (b) Compulsory requirements.
- (c) Education for all children.
- (d) Curricular changes.
- (e) Present-day importance.
- (f) New trends.

ELECTIVE I

DEVELOPMENT AND NATURE OF LEGAL AUTHORITY

1. Need of Laws

2. Nature of Authority

- (a) By one or a few.
- (b) Early forms.
- (c) Early law-givers.
- (d) Roman codes.

3. Later Legal Developments

- (a) Documents
 - i. Magna Carta.
 - ii. Habeas Corpus.
 - iii. Bill of Rights.
 - iv. Code Napoleon.
 - v. Canadian Bill of Rights.
- (b) Nature of Arbitrary Rule.

4. Modern Day Comparisons

5. Nature of Canadian Legal Authority

- (a) Kinds of courts and of law enactments.
- (b) Respect of law and enforcement agencies.

ELECTIVE J

ANCIENT GEOGRAPHY

1. Early Stories of Other Lands

2. Geographical Achievements in the Mediterranean

- (a) Reasons.
- (b) Early trade routes.

3. Early Writers of Geography

- (a) Thales.
- (b) Herodotus.
- (c) Aristotle.
- (d) Alexander.
- (e) Pytheas.

4. Identification of Position

- (a) Egyptians
 - i. By intersection.
 - ii. By triangulation.
- (b) Assyrians.

5. Attempts to Measure and Map the Earth

- (a) Theory that earth was round.
 - i. Pythagoras.
 - ii. Other Greek observations.
- (b) Problem of measurement.
 - i. Eratosthenes.
 - ii. Hipparchus.
 - a. Astrolabe.
 - b. Map projections.
 - c. Spherical theory.
 - iii. Posidonius.

6. Ideas About Climatic Zones of the World

7. Summaries by Geographers

- (a) Strabo.
- (b) Ptolemy.

ELECTIVE K

DEVELOPMENT OF SCIENCE AND TECHNOLOGY

1. The Scientific Method of the Renaissance Period

- (a) Meaning and importance.
- (b) Significant thinkers — Bacon, Descartes, Newton.
- (c) A concise review of the effect of science on trade and invention.

2. Effect of Science on Conditions of Modern Living

- (a) Of automation.
- (b) An appreciation of science in relation to modern living conditions.
 - i. Transportation, communication, production and exchange.
 - ii. Industrial progress, new comforts.
 - iii. New drugs and effect on health and longevity of life.
- (c) Conservation of resources.

3. The Modern Technological Revolution in Business and Industry.

SOCIAL STUDIES 20

Text

Our European Heritage: Lawrence, Mix and Wilkie.

Outline of Content

UNIT ONE

THE EXPANSION OF HABITABLE AND PRODUCTIVE AREAS SINCE THE BEGINNING OF THE MODERN AGE

1. Scientific Thinking in the Field of Geography in the Renaissance Period

Concepts of the earth during the fourteenth century.

The Renaissance in the learning of the ancient world.

Practical inventions and new ideas.

2. The Geography of Discovery and Colonization

The Atlantic barrier to expansion of civilization.

The conquest of the oceans.

The period of exploration of the New World was followed by that of colonization and expansion of settlement.

3. The Effect of Exploration and Early Colonization Upon the Parent Civilization

Increased knowledge of the world.

The development of new areas of settlement.

Trade in Europe given tremendous impetus.

Far-reaching economic results.

Improved transportation.

The spread of civilization as a result of missionary zeal.

The shift in political power.

4. Present Day Distribution of Population Contrasted with that at the Beginning of the Modern Period

Civilized areas in Columbus' time.

Colonization on the eastern coasts of America.

Factors responsible for modern distribution of population in America, coastal Asia and Africa.

5. The Application to a Modern Situation of the Concepts Learned in this Unit

UNIT TWO

THE EFFECT OF SCIENCE ON OUR ECONOMIC LIFE

1. The Distinctive Industrial Character of Modern Civilization

2. The Application of Science to Industry

The Agricultural Revolution.

The Industrial Revolution.

3. **The Economic Principles of Modern Production and Distribution**
 The factors of production: land, labor, capital and management.
 The relationship between capital and labor.
4. **The Application to a Modern Situation of the Concepts Learned in this Unit**

UNIT THREE

THE RISE OF NATIONALISM: THE EXPANSION OF EUROPEAN EMPIRES

1. **The Formation of Nation-States at the Beginning of the Modern Age**
 England.
 France.
 Spain.
2. **Imperial Expansion and Colonial Rivalry (Economic Factors)**
 Spain.
 Great Britain.
 France.
3. **The Concepts of Nationalism and Liberalism**
 Great Britain
 The Tudor Period.
 The Stuart Period.
 Union of England and Scotland.

 France
 Absolute Monarchy.
 Influence of liberal writers.
 The French Revolution.
 The Napoleonic Period.
 The Revolution of 1848.

 America
 The American Revolution.
 The Latin American countries.
4. **Imperial Aspirations in the Late 19th Century**
 Delayed Unification:
 Russia.
 Prussia unifies Germany.
 Sardinia unifies Italy.
 Rivalry for trade and colonies.
5. **The Application to a Modern Situation of the Concepts Learned in this Unit**

UNIT FOUR

THE DEVELOPMENT OF PARLIAMENTARY GOVERNMENT IN BRITAIN AND IN CANADA

A COMPARISON WITH THE CONSTITUTION OF THE UNITED STATES

1. **The Growth of Parliamentary Institutions (Representative Government) in England (to 1700)**
Origins of parliamentary institutions in the thirteenth century.
Parliament in the time of the Tudor rulers.
The struggle for authority between parliament and the Stuart sovereigns.
2. **The Rise of Responsible (Cabinet) Government in Great Britain; the Extension of Democracy (to 1900)**
The origin of political parties in Great Britain.
The first Cabinets.
The first Prime Minister.
The principle of Cabinet responsibility.
3. **A Brief Outline of Canadian Constitutional Development**
The government of New France (a) by fur companies, (b) by royal officials, (c) under British military rule, 1760-63.
The government of the colony of Quebec in the first years of the British period.
Proclamation of George III.
The Quebec Act, 1774.
The introduction of representative government in the British North American colonies.
The Constitutional Act, 1791.
The Movement toward responsible government:
The Rebellion of 1837 and the Durham Report.
The Act of Union, 1841.
The principle of responsible government established (1) in Nova Scotia, 1848; (2) in the Province of Canada, 1849.
The adoption and extension of the federal plan: Conferences.
The British North America Act, 1867.
The inclusion of provinces additional to the original four.
4. **The Nature of the Constitution of the United States**
Some points of similarity between the British constitution and that of the United States.
Some points of similarity between the Canadian constitution and that of the United States.
Some points of difference between the constitution of the United States and
(a) that of Great Britain.
(b) that of Canada.
5. **The Application to a Modern Situation of the Concepts Learned in this Unit**

UNIT FIVE

SOCIAL ENLIGHTENMENT AND REFORM

1. Social Problems in England Prior to the Industrial Revolution: Remedies Attempted

The contributions to social welfare of the guild and the monastery.
The first modern attempts of the state to deal with social problems.

2. Social Conditions Resulting From the Industrial Revolution

Overcrowding in cities.
Employment of women and children.
Increased wealth.
Great class-distinction.

3. Enlightenment and Social Improvement

Forerunners in social thinking (e.g., the leaders in the Renaissance movement; Hobbes and Locke; Diderot, Rousseau and Voltaire).
John Wesley and the Methodists.
William Wilberforce and the anti-slavery movement.
John Howard, Elizabeth Fry and prison reform.
Florence Nightingale and care of the sick; the Red Cross Society.

4. The Assumption of Responsibility for Social Reform by the State

Factory Acts.
Health measures.
The reform of criminal law.
Education.
State welfare services.

5. Modern Applications of the Concepts Learned in this Unit

UNIT SIX

THE BACKGROUND OF CANADIAN CULTURE AND RELIGIOUS DEVELOPMENT

1. A Definition of Culture:

Examples.

2. The Spirit of the Renaissance

The revival of learning.
Renaissance literature.
The glory of the Renaissance in painting, sculpture and architecture.
Music in the new day.

3. The Reformation

Religious thought in pre-Reformation Europe.
The rise of Protestantism.

The Catholic Reformation.

The Reformation in England and Scotland.

Post-Reformation developments in religious thought.

4. Features of Cultural and Religious Life in Britain and Other European Countries

Art and architecture.

Literature.

Music.

Religious thought.

Education.

5. Features of Canadian Religious and Cultural Life

Early missions and missionaries.

Varied religious groups in Canada.

Art.

Literature.

Music.

Education.

6. The Application to a Modern Situation of the Concepts Learned in this Unit

SOCIAL STUDIES 30

Text

Canada in the Modern World: Lawrence, McInnis, Mix and Wilkie.

Supplement to Canada in the Modern World.

Outline of Content

UNIT ONE

THE INFLUENCE OF GEOGRAPHY ON THE DEVELOPMENT OF CANADA

I. The Geographic Problems in the Preservation of Canadian Unity

A. The Physiographic Regions of Canada as a part of the North American Continent.

1. The Regions:

(a) The Cordillera or Mountainous Region

Coastal Ranges

Selkirks

Rockies

The Plateau

(b) The Great Plains:

1st steppe

2nd steppe

3rd steppe

The Mackenzie Basin

- (c) The Laurentian - Appalachian - Canadian Shield
- (d) The St. Lawrence Lowlands
- (e) The Maritimes and Newfoundland.

2. The Diversity Within These Regions

- (a) in soil
- (b) in resources.

3. The Geographical Grain of the Country — north-south alignment, not east-west.

B. The Regional Influence on Industries

- 1. Their relation to the geography of North America (that is resources in a general way).

C. The Barriers to Canadian Settlement

- 1. The Rockies
- 2. Northern Ontario
- 3. The Canadian Shield
- 4. Climate — drainage and soil conditions as barriers to settlement in the north.

D. The Natural Trading Areas of Canada and North America

- 1. The conflict between overlapping areas.
- 2. The relative importance of areas.
- 3. The north-south alignment and the distribution of population centers in Canada:
Regional metropolitan areas of population. Definition — Halifax-Boston, Montreal-New York, Winnipeg-Minneapolis, Vancouver-Seattle, Lethbridge-Great Falls.

E. Transportation Routes by Land and Water

- 1. Rivers:
Mackenzie
Athabasca
Saskatchewan
St. Lawrence — only east-west system and even it has the Mohawk-Hudson which is north-south.
- 2. Highways
- 3. Railways
- 4. Gas pipeline — east-west not the most economic route.

II. A Survey of Canadian and World Resources Basic to Modern Industry

- A. Soil resources and the international food problem — pressure of population on land as in Japan.
- B. Six of the vital markets in the new development in industry
 - 1. Material resources, location, availability of supply in Canada and the world, relative supplies, significance
 - (a) Uranium

- (b) New metals such as titanium
 - (c) Chromium
 - (d) Nickel
 - (e) Iron—U.S.A. and Liberia supplies — conflict
U.S. stand on the St. Lawrence Seaway influenced.
2. Power resources:
- (a) Gas — petrochemical industry
 - (b) Oil — Middle East and Canada and world supply
 - (c) Coal
 - (d) Hydro-electric — Aluminum — Kitimat
 - (e) Water supply.

III. Air Age Geography and the Arctic

- A. Brief review of many projections and types
Mercator
Polar
Equal areas, etc.
Changing concepts of the world make polar or globe projections most valuable.
- B. Ownership of the Arctic Regions — U.S.S.R. — Canada — Denmark.
- C. A study of the air routes of the world — Globe or polar projections.
- D. The Third Frontier:
Atlantic
Pacific
Arctic Oceans
The population pattern in Canada thrown off center by geographic and climatic conditions except for the military.
The importance of the sub-Arctic.
- E. Our Stake in the Arctic
Defence — radar
Technical developments
Commercial centers — relationships
Resources and developments
weather
police efforts
the eleventh province
growing industries
limitations.

UNIT TWO

CANADA AND INTERNATIONAL TRADE

1. The Economics of International Trade

- (a) Balance of trade — favorable and unfavorable balance.
- (b) Mechanics of international exchange.
- (c) Dollar areas versus sterling bloc.

- (d) Depressions and mechanisms of exchange — inflation.
- (e) Government control.
- (f) Trade competition.

2. The Development of Canada's Trade Policies

- (a) The mercantile system — New France and Acadia — the English Navigation Acts
- (b) The free trade movement
- (c) The Galt Doctrine and protection
- (d) Reciprocity
- (e) National policy
- (f) Renewed efforts at reciprocity
- (g) Ottawa Trade Agreements
- (h) Canadian economy and the Second War.

3. Canada's Place in World Trade

- (a) The post-war problems
- (b) Canada's customers
- (c) Relationships between trade and international affairs
- (d) Trade relationships in the British Commonwealth
- (e) Trade relationships with the U.S.A.
- (f) Trade relationships with Latin America.

UNIT THREE

THE SEARCH FOR SECURITY IN THE TWENTIETH CENTURY

1. The Dawn of the Twentieth Century

- (a) The spread of western civilization
 - New products
 - State intervention and control
 - The rise of socialism
 - The international aspect.
- (b) The world in transition
 - Balance of power
 - Imperialist rivalries
 - Internationalism
 - The First World War

2. The New Settlement

- (a) Preliminaries to peace
 - The settlement of Europe
 - Minorities
 - Mandates
 - Economic and military clauses.
- (b) Internationalist Order in a Nationalist World
 - The League of Nations
 - The World Court

The I.L.O.
Defects of the League
Security and disarmament
Nationalism and self-determination
The Mandates System.

3. European Democracies and Dictatorship

- (a) The problems of Britain
The troubles of France
Fascism in Italy
Nazism in Germany
Soviet Communism.
- (b) Through aggression to a Second World War
Aggression by Japan
Aggression by Italy
The advance of Germany
Spain and Austria
Munich
The coming of war
The Second World War
The aftermath of war.

4. The Search for Peace in a Divided World

- (a) The establishment of the United Nations
The background of the Cold War
The United States assumes leadership of the democracies
The role of defeated nations
The peace treaties of 1946-47
The Japanese Peace Treaty
The Cold War
- (b) Pacts and alliances maintain the balance of power
Communist alliances
Democratic alliances.
- (c) The United Nations strives for security
The Korean War tests the United Nations
World peace is threatened in many areas
United Nations contributes to peace and welfare
Strengths and weaknesses of the United Nations
The search for security is not over.

UNIT FOUR

NATIONALISM AND THE MODERN WORLD

1. The Advance of Canadian Nationalism

- (a) The colonial background
- (b) The winning of responsible government

- (c) The coming of Confederation
- (d) The advance of Canadian nationalism
- (e) Nation and Commonwealth
- (f) Canada in the world crisis.

2. Nationalism in the British Empire and Commonwealth

- (a) Variety in the Commonwealth and Empire
- (b) Nationalism changes the Empire: India, Pakistan, Ceylon
- (c) Nationalism reduces the Empire: Burma, Eire (Egypt, Palestine)
- (d) The Federation of Rhodesia and Nyasaland
- (e) Nationalism within the Commonwealth and international affairs
- (f) Links of the Commonwealth transcending nationalism.

3. Recent Expressions of Nationalism

- (a) A review of colonialism
- (b) Indonesia
- (c) Nationalism and the French Union.

SENIOR HIGH SCHOOL PHYSICAL EDUCATION

Physical education is concerned with the development of the whole individual. As well as contributing to the mental, social and emotional well-being of youth, a claim all subjects make, physical education has its unique contribution in developing physical fitness and motor skills in recreational activities which can carry over into adult life.

Every physical education program must motivate the student to engage in activities which develop physical fitness as well as those that are recreational in nature. The program must be challenging and also allow for personal achievement at the various levels of participation. Individual differences, needs and desires must be taken into account in order to provide enjoyment and self-satisfaction.

Objectives of Physical Education

1. The development of a strong body and sound functioning of body systems.
2. The development of recreational and utilitarian skills.
3. The development of a wholesome interest in physical activities for wise and constructive use of leisure time.
4. The development of desirable standards of behaviour and the ability to get along well with other people.

PROGRAM ORGANIZATION

There are many activities from which a physical education program may be chosen. In order to insure that a well-balanced program is carried out, however, three principles have been established.

First, the program from Grade VII through Grade X is sequential and there should be a continuous progression in skills from basic to complex. The student should also experience a variety of activities. Therefore the program should be carefully planned with this end in view. It is particularly important that the program in Senior High School be planned with a knowledge of what the student's program has been in the Junior High School.

Second, six major kinds of activities are considered to be of importance in the physical education program. These are designated as core activities. Each of the six categories of activity either is in itself a core activity or includes core activities. The core activities are:

1. Outdoor: — Flag Football, Ice Hockey, Softball, Soccer, Field Hockey.
2. Indoor: — Basketball, Volleyball.
3. Dual and Individual: — Badminton, Cross-Country Running, Handball, Skating, Track and Field, Wrestling (boys).
4. Rhythmics and Dance.
5. Tumbling and Gymnastics.
6. Aquatics (where facilities are available).

Applying the principles stated above, therefore, a sound physical education program for any one year will be organized as follows:

1. Two or more outdoor team games at least one of which must be a core activity.
2. Two or more indoor team games at least one of which must be a core activity.
3. Two or more individual or dual sports one of which must be a core activity.
4. Tumbling and Gymnastics.
5. Rhythmics and Dance.
6. Aquatics (where facilities are available).

PHYSICAL EDUCATION 10

Course Content

Note: In teaching the activities listed below the following areas will be covered:

(1) History, (2) Terminology, (3) Rules and Officiating, (4) Selection and Care of Equipment, (5) Skills and Techniques, (6) Team play or games strategy (where applicable), (7) Lead Up Games and Game Variations, (8) Conditioning. Some of these areas will be incidentally taught while others will be taught directly.

Activities not included in the list may be taught with the approval of the superintendent of schools.

I. OUTDOOR TEAM GAMES

A. Flag Football (Core)

1. Skills and Techniques

- (a) Stance of linemen and backfield
- (b) Pulling of linemen
- (c) Blocking: — shoulder, brush, kick off protection, pass protection
- (d) Passing and receiving: — throwing, catching, cutting, pass patterns, pass defence
- (e) Central exchanges: — the “T”, single wing, punting, field goals, leading
- (f) Kicking and receiving: — punting, field goals, receiving a punt or a kick off.

2. Team Play

- (a) Offensive plays: — quick opening, off tackle, end run, reverse and double reverse, counter, pass plays
- (b) Defensive plays: — individual responsibilities, side-line defence, rushing, rotating, stunting, looping, floating.

B. Ice Hockey (Core)

1. Skills and Techniques

- (a) Skating: — starts, stops, backwards, forwards, turns, reverses
- (b) Shooting: — forehand, backhand, slap
- (c) Passing
- (d) Checking: — poke, shoulder, hip, fore. back, blocking shots
- (e) Goal tending.

2. Team Play

Power play, penalty killing, offensive and defensive positional play, plays initiated inside the blue line.

C. Softball (Core)

1. Skills and Techniques

- (a) Throwing: — underhand, overhand, sidearm
- (b) Fielding: — ground balls, fly balls
- (c) Batting: — stance, saving, **punting**
- (d) Base running
- (e) Positional play: — catcher, pitcher, basemen, shortstop, outfielders.

2. Team Play

- (a) At Bat
- (b) In the Field.

D. Soccer (Core)

Skills and Techniques

- (a) Passing, receiving, dribbling, heading
- (b) Trapping: — foot, shin, body
- (c) Kicking (stationary and moving): — volleying, charging, tackling, throwing, goalkeeping.

E. Bordenball

Skills and Techniques: — passing, shooting.

F. Broomball

Skills and Techniques — basic skating skills, goal tending, use of broom.

G. Curling

Skills and Techniques

Delivery (in-turn, out-turn, weight); sweeping, skipping.

H. English Rugby

Skills and Techniques

- (a) Running: — sverve, sidestep, change of pace, hand-off, selling.
- (b) Ball skills: — passing, punting, catching, drop kicking, place kicking, dribbling, falling the ball.
- (c) Fielding and tackling.
- (d) Scrum play: — set scrum, loose scrum, line out, wheeling, positional play.
- (e) Back play: — alignment, scrum half, break through, offensive kicking, (short kick, grubber kick, cross kick) reverse play, scissors pass, blind side pass.

I. Field Ball

Passing, Shooting.

J. Field Hockey (Core)

Skills and Techniques

- (a) Passing, receiving, dribbling, fielding, tackling
- (b) Individual defence, bully, corner, roll-in
- (c) Goal tending.

K. Speedball

Skills and Techniques

Dribbling, passing, place and drop kicking, punting, pickups.

II. INDOOR TEAM GAMES

A. Basketball (Core)

1. Skills and Techniques

- (a) Basic stance: — offence and defence
- (b) Footwork: — running forward and backward, pivoting, one-two count
- (c) Passing, pass-receiving: — two-hand chest, one-hand push, bounce, overhead, hook, baseball, underhand

- (d) Shooting: — two-hand set, layup, hook, jump, running one hand, foul shooting
- (e) Dribbling: — high, low.

2. Team Play

- (a) Man-to-man and zone defences
- (b) Screening, overloading, fast break.

B. Volleyball (Core)

1. Skills and Techniques

- (a) Volleying: — position, back court volleying, setting, below the chest
- (b) Serving: — underhand, overhand, assisted, arm and hand action
- (c) Spiking: — approach, placing, back court spiking, arm and hand action
- (d) Blocking: — the jump, recovering the ball off the net.

2. Team Play

- (a) Offence: — 1, 2, 3 (volley, set, spike), rotation of the setter, the fake spike
- (b) Defence: — double team blocking, team movement for spikes and tips, team movement when there is no spike.

C. Floor Hockey

With the exception of skating, same skills as ice hockey.

D. European Handball

Skills and Techniques

Dribbling, shooting, passing, defensive fundamentals.

III. DUAL AND INDIVIDUAL SPORTS

A. Badminton (Core)

Skills and Techniques

- (a) Serves
- (b) Forehand and backhand
- (c) Clear, drive, drop, smash, net, round the head
- (d) Doubles systems of play.

B. Cross Country Running (Core)

Running style; conditioning; pacing; strategy.

C. Handball (Core)

Skills and Techniques

Serve, volley, half-volley, lob, killshots, back-wall and ceiling shots, doubles systems of play.

D. Skating (Core)

Skills and Techniques

Skating forward, backward; stops, turns, starts; figure 3, figure 8, spiral; elementary individual and pair routines.

E. Track and Field (Core)

Skills and Techniques

- (a) Sprints: — starts, running stride, the finish
- (b) Relays: — baton exchange, types of relay
- (c) Middle distance: — running stride, hand, arm, leg and foot action, the finish
- (d) Broad jump: — approach, take-off, the jump, landing
- (e) High jump: — approach, take-off, kick (western, eastern, belly roll) landing
- (f) Hurdles: — movement of leading and trailing leg, steps between hurdles, the start, approaching first hurdle, the finish
- (g) Shot put: — hand-hold, delivery, release, movement across the circle, recovery
- (h) Discus: — hand-hold, initial stance, preliminary swings, delivery, movements across the circle, release, recovery
- (i) Pole vault: — hand-hold, pole carry, approach, swing up, pull up, body form, landing
- (j) Hop, step and jump: — approach, take-off, the hop-step-jump rhythm, landing.

F. Wrestling (Core)

Skills and Techniques

- (a) Stance: — on the feet, on the mat, closed stance
- (b) Breakdowns: — near arm and far ankle, head lever and far ankle, far arm and far ankle
- (c) Riding the opponent
- (d) Reverses and escapes: — defensive positions on the mat, wing lock or side roll, escape from underneath, hip-lock escape, hip-lock escape with cross face
- (e) Pinning holds: — near wrist and half-nelson, hammerlock and half-nelson, crotch and half-nelson, outside crotch and near wristlock.

G. Archery

Skills and Techniques

Stringing the bow, basic stance and position, nocking, holding, drawing and aiming, loosing, novelty shots.

H. Bowling

Skills and Techniques

Grip, footwork, release, speed and rhythm, point of aim
Types of delivery: — straight, hook, back up
Types of shots: — strikes, spares, splits.

I. Golf

Skills and Techniques

Grip, stance, swing, wood shots, irons, putting, selection of clubs.

J. Hiking and Campercraft

1. Skills and Techniques

- (a) Campercraft: — fire building and safety, outdoor cooking, menu planning, cooking kits and food packing.
- (b) Knotcraft: — rope whipping, reef knot, bowling, clove-hitch, use of knots, use of lashing ropes
- (c) Direction-finding: — sun, watch, stars, compass.

2. Campsites and Equipment

- (a) Types of camp: — resident family, dual and individual campsites and shelters
- (b) Camp facilities and resources, public lands and parks.

3. Camping Activities

- (a) Campfire activities: — stories, skits, songs, games
- (b) Other: — canoeing, swimming, casting, fishing, archery, hiking, ice-fishing
- (c) Nature study: birds, leaves, rocks, insects, trees, animals, fish.

K. Horseshoes

Skills and Techniques

Grip, turns, stance, step and swing, release.

L. Personal Defence

Judo, ju-jitsu, boxing.

Note: These sports should be offered only by teachers skilled in the activity and where facilities and equipment ensure the safety of the students participating.

M. Skiing

Skills and Techniques

- (a) On the level: — gliding, step, skating, step turn, kick turn
- (b) Climbing: — side step, herring bone, traverse
- (c) Downhill: — straight turn, traverse stopping, side slipping, other turns.

N. Table Tennis

Skills and Techniques

- (a) Basic stance, grip, service, spins
- (b) Defensive strokes: — the half-volley, the chop
- (c) Offensive strokes: — the drive, the drop shot
- (d) Doubles systems of play.

O. Tennis

Skills and Techniques

Grip, stance, footwork, forehand and backhand drives, service, lob, volley, half-volley, smash, doubles systems of play.

IV. RHYTHMICS AND DANCE (Core)

A. Dance

1. Folk Dance:

basic steps, fundamental and derived

2. Square Dance: — patter and singing calls, single and double visiting couple, accumulative figures

3. Social and Ballroom Dance: basic steps in waltz, foxtrot, tango, rumba, samba, current dance steps, dance patterns.

4. Creative or Modern Dance:

(a) Moving in and through space: — locomotor and axial movement, space design, group design, floor pattern, qualities of movement

(b) Dance techniques: — creative activities, improvisations, abstracts, response to stimuli

(c) Composition principles: — units, variety, repetition, contrast, balance, harmony.

5. Tap Dance: — basic steps, combinations, routines.

6. Ballet

V. TUMBLING AND GYMNASTICS (Core)

A. Tumbling

Forward roll, backward roll, shoulder roll, dive roll, three-man shuffle, double roll, jump through, nip up, chest roll, fish flop, head spring, neck spring, hand spring (bent and straight arm), round-off cartwheel.

Trampoline

(a) Rebounding form — basic form, tuck, pike, jack knife

(b) Drops — check drop, knee, hand and knee, seat, front and back

(c) Advanced stunts — somersaults, twists, dives and back over.

B. Free Exercise

C. Balances

Squat, hand and head, forearm, snapdown.

D. Double Balances

Foot to hand, thigh stand, knee stand, walk-up shoulder mount, low arm to arm, assisted somersault.

E. Pyramid Building

F. Horizontal Bar (Boys)

Chins, skin-the-cat, monkey hangs, belly grind, front hip circle, short underswing and dismount, low underswing with half turns at end, single knee dismount, single knee mount from swing, single knee circle backward, double knee circle forward, single knee circle forward.

G. Vaulting Box

1. Sideways: — squat vault mount, jump off forward (with pike), straddle vault, squat vault, side or flant vault, front vault, stoop vault, dive over box with forward roll, neckspring, headspring, handspring.
2. Lengthways (boys): — squat vault mount, kneeling vault, straddle vault mount, side vault, scissors vault with half turn, forward roll, neckspring, headspring, handspring.

H. Parallel Bars (Boys)

1. Mounts: — Single leg cut on, double leg cut on, lazy man kip, inverted hang to straddle.
2. Dismounts: — single leg cut off, double leg cut off, front dismount to side, rear dismount to side.
3. Stunts: — jump to cross rest position, jump to cross upper hang, swing from shoulders, stationary and swinging dips, hand walk forward, crab walk on bars, straddle progression, swing through and sit, forward roll to straddle, forward roll, shoulder balance, roll forward from shoulder, roll backward from straddle, kick up-start, front uprise, back uprise, upper arm kip, handstand.

I. Uneven Parallels (girls)

1. Mount: — front support mount, backpull over, hang to straddle, pike or swing legs over, knee circle mount.
2. Dismount: — handstand $\frac{1}{4}$ turn, underswing high bar, straddle sole-circle.
3. Movements on the bars: —
 - (a) Hanging and swinging — underswing high bar $\frac{1}{4}$ turn, skin-the-cat cartwheel, cast off high bar.
 - (b) Circling the bar — knee circle, hip circle, seat circle.
 - (c) From bar to bar — stem rise, single leg kick-over, eagle regrasp.

J. Rings (boys)

Chins or bent-arm hang, inverted hand, swing, basket, single leg cut, inlocate, dislocate.

K. Balance Beam (girls)

1. Mounts: — straddle over to sit, squat mount, fence vault.
2. Dismounts: — pike jump, English hand balance, cartwheel.
3. Locomotor movements: — runs, hops, jumps.
4. Balances: — front scale, knee scale, lunge.
5. Tumbling stunts: — front roll, back roll.

VI AQUATICS (Core)

A. Swimming

1. Adjustment to the water, drownproof techniques.
2. Strokes — front crawl, back crawl, elementary back stroke, side stroke, breast stroke, hybrid strokes.
3. Floating, treading water and sculling.
4. Diving.
5. Life saving (for advanced swimmers).
6. Water games.

B. Synchronized Swimming

1. Sculling — flat scull, head first, feet first, circle propellor.
2. Back entries — back tuck somersault, back dolphin, kip, flying back dolphin.
3. Forward entries — front tuck somersault, front pike, somersault, bent knee front, tuck somersault, porpoise.
4. Ballet leg figures.
5. Strokes.
6. Floating — back layout, tub, log roll, marlin, waterwheel, shark.
7. Individual and group routines and patterns to music.

C. Water Safety

PHYSICAL EDUCATION 20

(Prerequisite: At least a B standing in P.E. 10)

The program for Physical Education 20 should be designed with emphasis on one or more of the following:

- i. Individual and dual sports
- ii. Specialization in an area of the students' choice (this elective possibility would necessitate adequate facilities and team teaching)
- iii. Development of leadership techniques for present and future use
- iv. Continued study in the variety of activities included in the core program outlined for Physical Education 10. (This program may be substituted when facilities are restrictive.)

PHYSICAL EDUCATION 30

Schools wishing to offer P.E. 30 must request a self-evaluation guide from the Assistant Director of Curriculum. Following return of the completed document, permission may be granted for the school to conduct the course. A "B" standing in P.E. 20 is the prerequisite.

MATHEMATICS

Objectives

While the academic, vocational and commercial sequences of courses have different specific objectives the common general purposes of senior high school mathematics courses are as follows:

1. To develop an understanding of mathematics as a creation of man and to develop an appreciation of the contribution of this discipline to the progress of civilization.
2. To develop precision in thought and expression.
3. To develop and maintain an understanding of the operations and concepts of mathematics.
4. To develop and maintain skill in mathematical operations.
5. To develop powers of logical analysis of problems and of presenting their solution in a clear and precise manner.

Mathematics 10, 20, 30, 31

This sequence of courses is designed for students in the academic pattern. The content is such that successful students may enter the university or a technical institute. These courses also contribute to general education.

MATHEMATICS 10

Text

Secondary School Mathematics, Grade 10, MacLean, Mumord, Bock, Hazell & Kaye.

Content

Note: Sections of the text listed as supplementary are not included in the minimum course.

Algebra

- | | |
|---|-------------------------|
| 1. Sets — | (Review A) |
| 2. Natural Numbers and Zero, Integers | (Review B) |
| 3. Rational Numbers, Irrational Numbers, Real Numbers | (Chapter 1) |
| 4. Equations and Inequations | (Chapter 2) |
| 5. Problem Solving | (Chapter 3) |
| 6. Factoring Polynomials | (Chapter 4) |
| 7. Simplification of Rational Expressions | (Chapter 5) |
| 8. Relations | (Chapter 6) (optional) |
| 9. Systems of Linear Equations | (Chapter 7) (optional). |

Geometry

Introduction, General Principles, Fundamental Constructions, and Inductive Reasoning (Review C & D).

- | | |
|--|-------------|
| 1. Introduction to Deductive Reasoning | (Chapter 8) |
|--|-------------|

2. Fundamental Angle Pair Theorems (Chapter 9)
3. Congruence (Chapter 10)
4. Converse Statements, Converse Theorems (Chapter 11)
5. Indirect Proof, Inequations (Chapter 12)
6. Parallel Lines (Chapter 13)
7. Areas of Polygons (Chapter 14)
8. Ratio and Proportion, Similar Figures (Chapter 15)

Note: Teachers are advised to consult the 1965 Curriculum Guide for Mathematics 10 and 20 for suggestive treatment of Chapters 14 and 15.

MATHEMATICS 20

Pre-requisite: Mathematics 10, B or better standing

Text:

Secondary School Mathematics—Grade Eleven, (Alberta Edition), Beesack, Maclean, Mumford, Alexander, Bates: Copp Clark. 1966

Teacher References:

Secondary School Mathematics, Grade Ten
Modern Algebra and Trigonometry, Book 2, Dolciani et al.
Senior Mathematics 2, Elliot et al.

Content:

Note: All sections listed as supplementary are to be omitted from the minimum course. In addition other sections as indicated are to be omitted.

1. Introduction
2. Real Numbers, Equations and Inequations (Chapter 1)
3. Exponents, Square Roots, Radicals, etc. (Chapter 2)
4. Introduction to Binary Relations (Chapter 3)
5. Relations, Functions (Chapter 4)
6. The Linear Function and Its Applications (Chapter 5)
7. Systems of Linear Equations (Chapter 6)
8. Exponents: The Exponential Function (Chapter 7)
9. Logarithmic Functions (Chapter 8)
 Sections 1-9 inclusive (omit Sec. 10-21)
10. The Quadratic Function and its Applications (Chapter 9)
 (omit section 15)
11. Introduction to the Theory of Quadratic Equations (Chapter 10)
12. The Circle (Chapter 11)
 Sections 1-9 inclusive (omit sec. 10-22)

MATHEMATICS 30

Prerequisite

“B” or better standing in Mathematics 20.

Texts

An Advanced Course in Algebra, Miller and Rourke

Mathematics for Canadians — Book 3, Chapter XII (available in booklet form).

Content

The detailed course outline and suggested order of topics for Mathematics 30 is as follows. Except where otherwise noted, chapter references are to *An Advanced Course in Algebra*.

Chapter I: Functions.

Chapter II: The Linear Function and Applications. *Omit* Section 10 and related exercises.

Chapter III: Quadratic Functions and Quadratic Equations. *Omit* Section 23 and related exercises.

Chapter IV: Polynomials and Algebraic Equations. *Omit* Section 28, 29, 30, 31, 32 and 33 and related exercises. *Omit* Parts B and C of exercises on the chapter, pages 123-128.

Chapter XII: *Mathematics for Canadians — Book 3*, pages 268-291.

Chapter V: Rational Functions of One or More Variables. Ratio and Proportion. Systems of Equations.

Chapter VI: Series of Numbers. The Progressions. *Omit* Sections 45, 47.1, 50 and 51 and related exercises.

Chapter VII: Permutations and Combinations. *Omit* Sections 62 and 63, and related exercises.

Chapter VIII: Mathematical Induction.

Chapter IX: The Binomial Theorem.

MATHEMATICS 31

Prerequisite

“B” or better standing in Mathematics 20.

Text

Trigonometry With Tables, Welchons and Krickenberg.

Note: (a) Knott's Revised Edition of Tables is authorized for use in Mathematics 31.

(b) Teachers may use either method of expressing the characteristics of a logarithm of a number less than one.

Content

1. Functions of an acute angle; solution of right triangles.
Omit: Page 22, versed sine, conversed sine, haversine, subversed sine, external secant.
2. Approximate numbers; logarithms.
Omit: Pages 72-73, cologarithms and related exercises.
3. The Slide Rule (this chapter is optional).
5. Trigonometric Functions of any angle.
6. Radian measure; mil measure.
7. Line values and Graphs of Functions.
8. Fundamental Relations.
9. Functions of Two Angles.
10. Oblique Triangles.

11. Inverse Functions.
12. Complex numbers and Hyperbolic Functions.

Note: Teachers who would like to include a treatment of spherical trigonometry in the Mathematics 31 course may decrease the amount of time spent on the solution of oblique triangles, especially through use of the Tangent Law. It is emphasized that material on spherical trigonometry will not be included in the departmental examination.

Mathematics 11 and 21

These two courses are designed to meet different needs. Mathematics 11 is suitable for students in the commercial pattern, whereas Mathematics 21, a course in consumer mathematics, meets the needs of any group of students.

MATHEMATICS 11

Text

Canadian Business Mathematics, Lund

Content

1. Addition and Subtraction —	Chapter 1
2. Multiplication and Division —	Chapter 2
3. Common Fractions —	Chapter 3
4. Graphs —	Chapter 4
5. Algebra and Its Allies —	Chapter 5
6. Ratio and Percentage —	Chapter 6
7. Mensuration —	Chapter 7
8. Profit and Loss —	Chapter 8
9. Invoices, Cash and Trade Discounts —	Chapter 9
10. Buying and Selling on Commission and Storage —	Chapter 10
11. Payrolls —	Chapter 11
12. Interest and Discount —	Chapter 12
13. Money and Banking —	Chapter 13

MATHEMATICS 21

Text

Canadian Business Mathematics, Book 2, Lund.

Content

1. Business Algebra —	Chapter 1
2. Simple Interest and Discount —	Chapter 2
3. Compound Interest and Discount —	Chapter 3
4. Investing in Stocks and Bonds —	Chapter 4
5. Borrowing Money from a Bank —	Chapter 5
6. Instalment Buying and Selling —	Chapter 6
7. Purchase and Sale of Real Estate —	Chapter 7
8. Foreign Exchange —	Chapter 8
9. Income Tax —	Chapter 9
10. Taxation —	Chapter 10
11. Life Insurance —	Chapter 11
12. Fire and Automobile Insurance —	Chapter 12
13. The Metric System —	Chapter 13
14. The Binary System and Computers —	Chapter 14
15. Classification and Sampling of Statistics —	Chapter 15

MATHEMATICS 12

Text

Mathematics in Practice, Revised Edition, Brown, Bridge and Morrison.

Content

1. Introduction to Geometry — Chapter 1
2. Geometric Constructions — Chapter 2
3. Integral Measures — Chapter 3
4. Fractional Measures — Chapter 4
5. Measurement of Distance — Chapter 6
6. Measurement of Area — Chapter 7
7. Measurement of Volume — Chapter 8
8. General Number — Chapter 9
9. Signed Numbers — Chapter 10
10. Operations with Signed Numbers — Chapter 11
11. Equations — Chapter 12
12. Operations with Algebraic Expressions — Chapter 13
13. Factoring — Chapter 14
14. Equations, Formulas and Problems — Chapter 15
15. Graphs and Simultaneous Equations — Chapter 16
16. Geometrical Constructions and Relationships — Chapter 19
17. Mensuration of Triangles — Chapter 20 (Optional)
18. The Cone, Pyramid and Sphere — Chapter 21 (Optional)
19. Trigonometry — Chapter 22.

MATHEMATICS 22

Text

Senior Technical Mathematics, Heywood

Content

1. Fundamental Operations — Chapter 1
2. Equations — Chapter 2
3. Factoring — Chapter 3
Omit factoring by “Incomplete Square” (page 44) and “Sum and Difference of Cubes” (page 47)
4. Ratio and Proportion, Variation — Chapter 4
5. Quadratic Surds — Chapter 5
6. Quadratic Equations, Surd Equations — Chapter 6
Omit pages 88 to 100 inclusive
7. Theory of Quadratic Equations — Chapter 7 (Optional)
8. Indices — Chapter 9
9. Logarithms — Chapter 10
10. The Slide Rule — Chapter 11 (Optional)
11. Approximate Numbers — Chapter 12 (Optional)
12. Perimeters and Areas of Plane Figures — Chapter 13
13. Areas and Volumes of Solids — Chapter 14
14. Introduction to Trigonometry — Chapter 15
15. Use of Tables and Identities — Chapter 16
Omit page 281 to the end of the chapter
16. The Right Triangle and Shop Problems — Chapter 17

17. Composition and Resolution of Forces — Chapter 24
18. Practical Geometry — Chapter 26.

MATHEMATICS 32

Text

Second Course in Algebra with Trigonometry, Weeks & Adkins

Content:

Note: Sidelights are optional. Chapters 3, 4, 5 and 11 should be reviewed as required.

1. Rational Numbers — Chapter 1
2. Equations, Inequalities — Chapter 2
3. Quadratic Equations with Rational Roots — Chapter 6
4. Irrational Numbers — Chapter 8
5. Functions, Graphs, Variation — Chapter 9
6. Elements of Coordinate Geometry — Chapter 12
Omit pages 273-279.
7. The Quadratic Function — Chapter 13
8. Equations of the Second Degree and Graphs — Chapter 14
(pages 367 - 370)
9. The Sine and Cosine Functions; Oblique Triangles — Chapter 15
10. Trigonometric Equations and Identities — Chapter 16 (Optional)
11. Polynomials — Chapter 17
(pages 445 - 457 inclusive).

SCIENCE

SCIENCE 10

Texts

Introductory Chemistry and Physics, Pickard & Radomsky
Chemistry, An Experimental Science (CHEM Study)
Laboratory Manual to accompany *Chemistry, An Experimental Science*

Course Content

Note that alternative programs are available for the Chemistry section of the course.

1. For students using the text *Introductory Chemistry and Physics*, Pickard & Radomsky.

Unit 1 A Short History of Science

Chapter 1: Our Debt to the Past

Unit 2 Matter

Chapter 2: Matter: Its Classification

Chapter 3: Matter: Its Composition

Chapter 4: Matter: Its Structure

Unit 3 The Language of Chemistry

Chapter 5: Symbols and Formulae: The Shorthand of Chemistry

Chapter 6: Chemical Equations: Short Stories of Reactions

Unit 4 Some Substances Man Has Learned to Use

Chapter 7: Oxygen: The World's Most Abundant Element

Chapter 8: Hydrochloric Acid: A Typical Acid

Chapter 9: Sodium Hydroxide: A Typical Base

Chapter 10: Sodium Chloride: A Typical Salt

2. For Students using *Chemistry, An Experimental Science* (CHEM Study)

Chapter 1: Chemistry: An Experimental Science

Chapter 2: A Scientific Model: The Atomic Theory

Chapter 3: Chemical Reactions

Chapter 4: The Gas Phase: Kinetic Theory

Chapter 5: Liquids and Solids: Condensed Phases of Matter

Chapter 6: Structure of the Atom and the Periodic Table

Experiments 1 - 11 from *Laboratory Manual* to accompany, *Chemistry, An Experimental Science*

SCIENCE 10 (Physics Section)

Unit 5 Mechanics of Fluids

Note: Unit 5 is optional except for Chapter 12 and Chapter 13 and Experiment 13 in Chapter 15.

- Chapter 11: Molecular Forces in Liquids
- Chapter 12: Pressure in Liquids at Rest
- Chapter 13: Pressure In Gases
- Chapter 14: Fluids in Motion
- Chapter 15: Experiments in the Mechanics of Fluids

Unit 6 Heat

- Chapter 16: Heat and Temperature
- Chapter 17: Expansion of Solids
- Chapter 18: Expansion of Liquids
- Chapter 19: Expansion of Gases
- Chapter 20: Specific Heat and Thermal Capacity
- Chapter 21: Latent Heat
- Chapter 22: Experiments on Heat

Unit 7 Sound

- Chapter 23: Production, Propagation, and Velocity of Sound
- Chapter 24: Transmission of Sound
- Chapter 25: Distinguishing Features of Sound
- Chapter 26: Resonance: Sympathetic Vibrations
- Chapter 27: Laws of Stretched Strings
- Chapter 28: Experiments on Sound

SCIENCE 11

Text

Basic Science for Secondary Schools by Hogg, et al
Laboratory Manual to accompany Basic Science for Secondary Schools,
Hogg et al

References

- (i) *Explaining the Sciences*, Brandwein, et al
- (ii) *Modern Biology*, Moon, Otto and Towle (1963 Edition)

Note: Students may use the text *Physical Science for Secondary Schools*, Hogg, Cross and Davis and *Supplement to Physical Science for Secondary Schools* in lieu of *Basic Science for Secondary Schools*, Hogg et al

Course Content

- Unit I The Earth As it Began (Optional)
 - 1. The Earth — Its Origin

2. Waters of the Earth
3. The Earth's Atmosphere

Unit II Earth, The Abode of Man

4. The Earth — Its Shape and Motion
5. Rocks of the Earth (1)
6. Rocks of the Earth (2)
7. The Changing Earth (Optional)
8. The Formation of Mountains
9. The Record of Rocks (Optional)
10. Earth History (Optional)

Unit III Weather

11. Winds and Air Masses
12. Fronts and Storms
13. Weather Forecasting (1)
14. Weather Forecasting (2) (Optional)
15. What is Climate?

Unit IV Chemistry, Fuels and Some Industries

16. Oxygen and Hydrogen
17. Water, An Important Compound
18. A Chemist's Language and Shorthand
19. The Structure of the Atom (Optional)
20. Fuels: Solid, Liquid and Gaseous
21. Some Chemical Industries
22. Metals (Optional)
23. Foods, Drugs and Antiseptics

Unit V Electricity

24. Magnetism
25. Static Electricity
26. Current Electricity
27. Heat and Light from Electricity
28. Power from Electricity

Unit VI Communication (Optional)

29. What is Sound?
30. Sound Instruments
31. The Telephone and Some Electronic Devices
32. Radio and Television

Unit VII Atoms and Stars (Optional)

33. Power from Atoms
34. The Sun
35. The Solar System
36. Stars and Galaxies

Unit VIII Biology - The Study of Life

37. The Living Cell
38. The Classification of Plants and Animals

- 39. Plants
- 40. Animals
- 41. Heredity - Transmission of Characteristics

Experiments

Experimental work to be done includes those experiments listed in the *Laboratory Manual*. However, experiments 5, 18 and 19 should be considered as optional.

SCIENCE 20

Texts

CHEMISTRY, An Experimental Science (CHEM Study)
Laboratory Manual to accompany CHEMISTRY, An Experimental Science
Physics for Secondary Schools, Alberta Edition, Enbank, Ramsay, Pickard
Physics (PSSC)
Laboratory Guide for Physics (PSSC)

A. Physics Section

ALTERNATIVE 1

Physics for Secondary Schools, Alberta Edition, Enbank, Ramsay, Pickard

Course Content

Chapter 1: Introduction

Unit I: Mechanics

- Chapter 2: Measurement
- Chapter 3: Density and Specific Gravity
- Chapter 4: Buoyancy
- Chapter 5: Force, Work and Power
- Chapter 6: Experiments on Mechanics

Unit II: Light

- Chapter 7: Nature and Propagation of Light
- Chapter 8: Photometry
- Chapter 9: Reflection of Light — Mirrors
- Chapter 10: Refraction of Light — Lenses
- Chapter 11: Colour
- Chapter 12: Optical Instruments (Optional)
- Chapter 13: Experiments on Light
- Chapter 14: Modern Developments in Physics (Optional)

Experiments

Appropriate experiments selected from the text.

A. Physics Section

ALTERNATIVE II

Physics (PSSC) — using first or second edition.

Course Content

PSSC 20 — Using 1st. Ed. of Textbook, Physics	PSSC 20—Using 2nd Ed. of Textbook, Physics
Part I—The Universe	Part I—The Universe
Chapter 1—What is Physics	Chapter 1—An Introduction to Physics
Chapter 2—Time and Measurement	Chapter 2—Time and Measurement
Chapter 3—Space and its Measurement	Chapter 3—Space and its Measures
Chapter 4—Functions and Scaling	Chapter 4—Functions and Scaling
Notes to Teachers:	Notes to Teachers:
1. Chapter 5, Motion Along a Path, has been deferred to Physics 30X	Notes 1, 2, 3, for the first edition apply also for the second edition
2. Four to five weeks only should be allowed for coverage of Part I	
3. Teaching for mastery of concepts of Part I is unnecessary since there is ample application of principles in later chapters	
4. Home, Desk and Lab problems from the second edition of the text should be used to supple- ment problems from the first edition	
Experiments:	Experiments:
I—1, 2, 3, 4	I—1, 2, 3, 4

PSSC 20 — Using 1st. Ed. of Textbook, Physics	PSSC 20—Using 2nd Ed. of Textbook Physics
Part II—Optics and Waves	Part II—Optics and Waves
Chapter 11—How Light Behaves	Chapter 11—How Light Behaves
Chapter 12—Reflection and Images	Chapter 12—Reflection and Images
Chapter 13—Refraction Sec. 1-8, inc. Omit “The Rainbow” p. 222-3	Chapter 13—Refraction Sec. 1-11 incl. (includes lenses; omits “The Rainbow”)
Chapter 14—Lenses Sec. 1-3 inc. Omit sec. 4-7 incl.	Chapter 14—The Particle Model of Light Sec. 1-8 incl.
Chapter 15—The Particle Model of Light Sec. 1-8 incl.	Chapter 15—Introduction to Waves Sec. 1-6 incl.
Chapter 16—Introduction to Waves Sec. 1-6 incl.	Chapter 16—Waves and Light
Chapter 17—Waves and Light	
Experiments:	Experiments:
II—1, 2, 3, 4, 5, 7, 8, 9, 10, 11 Omit Exp. II—6	II—1, 2, 3, 4, 5, 6, 7, 8, 9, 10

B. Chemistry Section

ALTERNATIVE I

Chemistry An Experimental Science (CHEM Study)

Course Content

- Chapter 7—Energy Effects in Chemical Reactions
- Chapter 8—The Rates of Chemical Reactions
- Chapter 9—Equilibrium in Chemical Reactions
- Chapter 10—Solubility Equilibria
- Chapter 11—Aqueous Acids and Bases
- Chapter 12—Oxidation—Reduction Reactions

Experiments 12-21 from Laboratory Manual to accompany CHEMISTRY, An Experimental Science.

B. Chemistry Section

ALTERNATIVE II

Elements of Chemistry, Radomsky, Kass and Pickard

Course Content

Unit I—Atoms

Chapter 1—The Fundamental Particles

Chapter 2—The Structure of the Atom

Chapter 3—The Periodic Classification of Elements

Unit II—Ions and Molecules

Chapter 4—Chemical Bonds (Omit Section c(ii) c(iii) under molecular shape)

Chapter 5—Naming of compounds

Chapter 6—Formula, Weights and Volume

Unit III—Chemical Reactions

Chapter 8—The Chemical Equation

Chapter 9—Solutions

Chapter 10—The Alkali Metals } These chapters should be discus-
Chapter 11—The Halogens } sed along with Chapter 1, 2,
and 3.

The following experiments contained in chapters 7 and 12 of the text are to be undertaken as part of this course in chemistry.

Chapter 7—Experiments on Unit I and II

1—Models of Atoms

2—Models of Molecules

4—Size of Molecules (suggested)

5—Conservation of matter

6—Definite Composition

9—Boyle's Law

10—Charles' Law

Chapter 12—Experiments on Unit III

1—Activity of Metals

3—Ionization and Colors of Ions (teacher or class demonstration)

5—Acids, Bases, and Salts (OMIT generation of hydrogen)

6—Tetration

7—Hydrolysis

8—Flame tests for Alkali metals

9—Preparation of HCl (Omit or provide a teacher demonstration)

10—Tests for Halogens

12—Preparation of Cl_2 , Br_2 , and I_2 (Omit or provide as a teacher demonstration)

CHEMISTRY 30

Text

Chemistry (Canadian Edition) Sienko and Plane
Laboratory Investigations in Chemistry, Davis and Allen

Course Content

1. Nature of Matter—Chapter 2
2. Atoms—Chapter 3
3. Chemical Bond—Chapter 4
4. Stoichiometry—Chapter 5
5. Gases—Chapter 6, omitting equation of state, pages 149 and 150 and sections 15 and 16
6. Liquids—Chapter 7
7. Solids—Chapter 8, omitting sections 2, 3, and 5
8. Solutions—Chapter 10, omitting sections 2 (reference to all concentrations except MOLARITY and NORMALITY) 3, 5, 6, 11 and 13; also omit Brönsted-Lowry and Lewis Acid Theories, page 214.
9. Electrochemistry—Chapter 14
10. Group IV Elements—Chapter 24, omitting sections 3, 5, 6, 7, 8 and 9
11. Organic Chemistry—Chapter 28, omitting sections 3, 4 and 5

Experiments

Laboratory experiments for Chemistry 30 shall consist of the following experiments from *Laboratory Investigations*, Davis and Allen

Experiments

- 1, 2, 4, 8, 9, 10, 11, 12, 13, 15, 17, 20, 25, 26, 27 and 28.

Texts

Elementary Physics, Littler
Physics (PSSC)
Laboratory Exercises in Physics 30
Laboratory Guide for Physics (PSSC)

Course Content

1. Using *Elementary Physics*, Littler
 - (a) The content selected from the text consists of materials on four topics: Mechanics, Hydrostatics, Heat, and Electricity.
 - (b) The following portions of the text are used:
 - i. **Mechanics:** Chapters 1-9 inclusive
Velocity
Acceleration, Falling Bodies
Newton's Second Law of Motion
Newton's Third Law of Motion
Work, Energy and Power
Machines and Their Efficiency
Composition and Resolution of Forces
Moment of a Force: Center of Gravity
Friction
 - ii. **Hydrostatics:** Chapters 10 and 11
Pressure in Liquids and Gases
Principle of Archimedes
 - iii. **Heat:** Chapters 13-18 and Chapter 21
Heat and Temperature. Thermometers
Expansion of Solids
Expansion of Liquids
Expansion of Gases
Specific Heat, Thermal Capacity, etc.
Latent Heat
Mechanical Equivalent of Heat
 - iv. **Electricity:** Chapters 33, 34, 36 up to and including "Solenoid", 37, 38 and 39
Electrostatics
Chemical Effects of the Electric Current
Current Measured by its Magnetic Effect
Ohm's Law and Its Applications
Electromagnetic Induction
Electricity as Energy

Demonstrations and Experiments

(a) **Experiments:**

The revised *Laboratory Exercises in Physics 30* consists of twenty experiments which students are expected to perform.

Experiment 1 on the Metric System should be performed early in the course.

Each of Experiments 1-11, inclusive, consists of two parts. In each case, PART B is stated as a follow-up problem to accompanying PART A, Part B is provided as extra work for the better students; its use is optional and at the discretion of the teacher.

(b) **Demonstrations:**

In addition to the experiments described in *Laboratory Exercises in Physics 30*, the text provides ample suggestions for demonstrations.

2. Physics (PSSC) Using first or second edition

Physics 30X—Using 1st. Ed. of Textbook, Physics.	Physics 30X—Using 2nd Edition of Textbook, Physics.
Part I—The Universe	Part I—The Universe
<i>Review—(Not more than 2 weeks)</i>	<i>Review—(Not more than 2 weeks)</i>
Chapter 2—Time and Sec. Measurement 4 and 7	Chapter 2—Time and Sec. Measurement 4 and 7
Chapter 3—Space and Its Sec. Measurement 5 to 7 inc.	Chapter 3—Space and Its Sec. Measures 5 to 7 inc.
Chapter 4—Functions and Scaling Sec. 3 and 4	Chapter 4—Functions and Scaling Sec. 3 and 4
<i>New Work</i>	<i>New Work</i>
Chapter 5—Motion Along a Path Sec. 1 to 7, omitting 8	Chapter 5—Motion Along A Sec. Straight-Line Path 1 to 8 inc.
Chapter 6—Vectors Sec. 1 to 7 inc.	Chapter 6—Motion in Space Sec. 1 to 7 inc.
Exp. I—5	Exp. I—5
Part III—Mechanics	Part III—Mechanics
Chapter 20—Newton's Law of Motion	Chapter 19—Newton's Law of Motion
Chapter 21—Motion at the Earth's Sec. Surface 1-8 inc.	Chapter 20—Motion at the Earth's Sec. Surface 1-8 inc.

Physics 30X—Using 1st. Ed.

Chapter 22—Universal Gravitation
and the Solar System
Sec. 6-11, read 1-5

Chapter 23—Momentum and
Conservation of
Momentum
Sec. 1-4, read 5-8

Chapter 24—Work and Kinetic
Energy
Sec. 1-8, 10 and 11

Chapter 25—Potential Energy

Chapter 26—Heat, Molecular
Motion, Conservation
of Energy

Experiments:

III—2, 3, 4, 5, 6, (8), 9, 10, 11,
12, 13, 14

Part IV—Electricity and Atomic
Structure

Chapter 27—Some Qualitative Facts
About Electricity

Chapter 28—Coulomb's Law and
the Elementary
Electric Charge
Sec. 1-7 incl.

Chapter 29—Energy and Motion of
Charges in Electric
Fields
Sec. 1-8, 13 and 14

Physics 30X—Using 2nd. Ed.

Chapter 21—Universal Gravitation
and the Solar System
Sec. 6-11, read 1-5

Chapter 22—Momentum and the
Conservation of
Momentum
Sec. 1-4, read 5-7
and rockets

Chapter 23—Work and Kinetic
Energy
Sec. 1-8, 10 and 11

Chapter 24—Potential Energy

Chapter 25—Heat, Molecular
Motion, Conservation
of Energy

Experiments:

III—1, 2, 3, 4, 5, (7), 9, 10*,
11, 12, 13

Part IV—Electricity and Atomic
Structure

Chapter 26—Some Qualitative Facts
About Electricity

Chapter 27—Coulomb's Law and
the Elementary
Electric Charge
Sec. 1-7 incl.

Chapter 28—Energy and Motion of
Charges in Electric
Fields
Sec. 1-7 incl.

*Do not appear in 1st. Edition

Physics 30X—Using 1st. Ed.	Physics 30X—Using 2nd. Ed.
<p>Chapter 30—The Magnetic Field</p> <p>Chapter 31—Electro-magnetic Induction and Electromagnetic Waves</p> <p>Experiments:</p> <p>IV—1 to 10</p>	<p>Chapter 29—Electric Circuits Sec. 4 and 5</p> <p>Chapter 30—The Magnetic Field</p> <p>Chapter 31—Electromagnetic Induction and Electromagnetic Waves</p> <p>Experiments:</p> <p>IV—1, 2, 3, 4, (5)*, (6)*, 7, (8)*, (9)*, 10, 11, 12, 13</p>

Notes to Teachers:

1. Exhaustive treatment of Chapters 30, 31 is not necessary.
2. As much quantitative treatment should be attempted as the teacher considers advisable, in Chapters 30, 31.

SCIENCE 22

Science 22 is designed for students in vocational high schools who are taking programs which articulate with the Institutes of Technology, e.g. Drafting, Electronics, Machine Shop. It is expected that students in other programs may elect this course. Teachers should feel free to adjust the content and method of presentation to the capabilities of their classes; however, it is felt that students in the articulated programs should substantially cover the program as outlined:

A. Physics Section

Text

Physics, An Exact Science, White

1. Introduction — Lessons 3, 4*
2. Properties of Matter — Lessons 4, 5*, 6, 7*
3. Light — Lessons 1, 2, 3*, 4, 5*, 6, 7, 8*, 9, 10*, 11, 12, 13*, 14, 15*

Laboratory Exercises

The lessons above which are indicated by an asterisk are laboratory experiments found in a separate laboratory manual which accompanies the text. Students and teachers will require:

Laboratory Exercises to accompany *Physics, An Exact Science*, White

B. Chemistry Section

Text

Chemistry for Secondary Schools, Advanced Edition, Croal et al

1. Chapters 10-16 inclusive — Gas Laws, Laws and Theories, Symbols, formulae, Equations, Valence, Naming Compounds, Using Equations, Ionization.
2. Chapters 21-23 inclusive — Periodic Classification of Elements, The Halogens, The Alkali Metals.
3. Laboratory activities for the chemistry section can be found in EXPERIMENTS IN LABORATORY CHEMISTRY by Couke, Croal, Loudon. Some activities can be carried out as demonstrations in keeping with the teaching technique desired.

PHYSICS 32

As for Science 22, Physics 32 is designed for students in vocational high schools who are taking programs which articulate with the Institute of Technology and is expected to be equivalent to the Year "A" Physics program in the technical institutes. Information on course content and laboratory exercises follows:

Text

Physics, An Exact Science, White

Course Content

1. Light - Lessons 1, 2, 3*, 4, 5*, 6, 7, 8*, 9, 10*, 11, 12, 13*, 14, 15*.
2. Electricity and Magnetism
Lessons 1, 2, 3, 4*, 5, 6*, 7, 8, 9*, 10, 11*, 12, 13, 14*, 15, 16*, 17, 18, 19*, 20, 21*, 22, 23, 24*.
3. Atomic Physics - Lessons 1, 2, 3, 4*, 5, 6*, 7, 8, 9*.
4. Electronics (Optional) Lessons 1, 2, 3*.

Laboratory Work

Some of the lessons which make up the course content are marked with an asterisk. These are laboratory experiments found in a separate laboratory manual which accompanies the text. Students and teachers will require this laboratory manual which has the title, LABORATORY EXERCISES to accompany PHYSICS, AN EXACT SCIENCE, White.

Course Content (effective September, 1966)

Mechanics

Lessons 1, 2*, 3, 4*, 5, 6, 7, 8*, 9, 10, 11*, 12, 13*, 14, 15, 16*, 17, 18*, 19, 21, 23, 24, 27, 29, 30*, 31, 32, 33*.

Electricity

Lessons 1, 2, 3, 4*, 5, 6*, 7, 9.

Heat

Lessons 1, 3, 7*, 8, 9, 11, 12*.

BIOLOGY 20

Texts

Modern Biology, 1961 Edition, Moon, Otto and Towle

Modern Biology, 1963 Edition, Moon, Otto and Towle

Laboratory Exercises for Introductory Biology, Department of Education

Unit 1—Introduction

1. Science of Life — Chapter 1
2. Fundamental Properties of Life — Chapter 2
3. Chemical Basis of Life — Chapter 3
4. Structural Basis of Life — Chapter 4
5. Balance in the World of Life — Chapter 6
6. Vital Factors of the Environment — Chapter 7
RENEWABLE NATURAL RESOURCES OF ALBERTA
7. Functional Basis of Life — Chapter 5
8. Basis of Heredity — Chapter 49
9. Classification of Organisms — Chapter 8

Unit 2—Survey of Monera

1. Phylum Schizophyta — Chapter 10, p. 83
2. Phylum Cyanophyta — Pp. 91-95

Unit 3—Survey of Protista

1. Phylum Chlorophyta — Pp. 95-100, p. 83
2. Phylum Chrysophyta — Pp. 101-102
3. Phylum Mycophyta (slime mold, bread mold, lichen, yeast, one of: rust, mildew, mushroom) — Chapter 11
4. Phylum Mastigophora) — Chapter 20
Phylum Euglenophyta) *Euglena*
5. Phylum Sarcodina - *Amoeba* — Chapter 20
6. Phylum Ciliata - *Paramecium* — Chapter 20
7. Phylum Sporozoa - *Plasmodium* — Chapter 20

Unit 4—Survey of Plantae (Metaphyta)

1. Phylum Bryophyta — Pp. 127-130
2. Phylum Tracheophyta
 - a) Class Filicineae — Pp. 130-132
 - b) Class Gymnospermae — Pp. 139-141
 - c) Class Angiospermae
 - 1) General characteristics — Pp. 141-145
 - 2) Root absorption — Chapter 14 & 15
 - 3) Stem — Chapter 16
 - 4) Leaf — Chapter 17

Omit chlorophyll types, p. 187 and pp. 195-198

5) Flower — Chapter 18

6) Seeds — Pp. 216-219

Unit 5—Survey of Animalia (Metazoa)

General Features — Pp. 241-242

1. Phylum Porifera — Pp. 242-245, 715
2. Phylum Coelenterata - *Hydra* — Pp. 246-249
Aurelia - life cycle P. 715
3. Phylum Platyhelminthes - *Planarians* - general structure — Pp. 253-256,
716
Flukes - life cycle
Tapeworms - structure and life cycle
4. Phylum Nematelminthes - *Ascaris*, Hookworm — Pp. 256-258, 716
Trichinella
5. Phylum Annelida - *Lumbricus*, Leeches — Pp. 258-262, 716
6. Phylum Mollusca — Pp. 265-269, 716
(general characteristics and examples)
7. Phylum Echinodermata — Pp. 269-271, 716
(general characteristics and examples)
8. Phylum Arthropoda — Chapters 24 & 25, P. 717
General characteristics — Pp. 273
Grasshopper — Chapter 25
9. Phylum Chordata — Chapters 28-33, P. 718

Unit 6—Human Heredity and Change

1. Man's development - Evolutionary approach — Pp. 418-423
2. Body regulators — Chapter 41
3. Review basis of heredity with reference to man — Pp. 401-403 — Chptr. 49
4. Principles of Heredity — Chapter 50
5. Applications - Hybridizing, line breeding, Chromosomal
aberrations — Pp. 637-638, P. 640
6. Human Genetics — Chapter 52
7. Changing Life — Chapter 53
Points of View of Theory of Evolution, Supplement to Elements of Biology:
Weisz

Laboratory Exercises

All exercises in the authorized laboratory manual.

BIOLOGY 30

Text

Elements of Biology, Weisz, McGraw-Hill
including *Points of View on the Theory of Evolution* supplement.
Chemical Background for Biology 30, Brown

Laboratory Manual

Laboratory Exercises for Elements of Biology, McGraw-Hill

Unit 1—The Living World

1. The Nature of Science — Chapter 1
2. Chemical Background — Replacement chapter by Dr. Brown
3. Cell and Organism — Chapter 3
4. Species and Community — Chapter 4
5. Community and Environment — Chapter 5

Unit 2—The Living Organism

Students with only a Science 20 background should familiarize themselves with this material early in the year.

1. Protoplasm and Cells — Chapter 6
2. Monera and Protista — Chapter 7
3. Metaphyta: Advanced plants — Chapter 8
4. Metazoa: Advanced animals — Chapter 9

Unit 3—Metabolism

1. Autotrophic Nutrition — Chapter 10
2. Heterotrophic Nutrition — Chapter 11
3. Gas Exchange — Chapter 12
4. Cellular Metabolism: Respiration — Chapter 13
5. Cellular Metabolism: Energy Utilization — Chapter 14

Unit 4—Self Perpetuation: The Steady State

1. The Pattern of Reproduction — Chapter 19
2. Cellular Controls — Chapter 16
3. The Body Fluids — Chapter 17
4. Nervous Co-ordination — Chapter 18
(Omit chart p. 323 except as it applies to the Neural receptors)

Unit 5—Self Perpetuation: Reproduction

1. The Pattern of Reproduction — Chapter 19
(Mitosis and meiosis are to be taught essentially as a review of Biology 20).
2. Reproduction: Monera, Protista, Metaphyta — Chapter 20
3. Reproduction: Metazoa — Chapter 21

Unit 6—Self Perpetuation: Adaptation

1. Heredity — Chapter 22
2. The Mechanism of Evolution — Chapter 23
3. The Course of Evolution — Chapter 24 and *Points of View* Supplement.

Laboratory Exercises

All exercises in the authorized laboratory manual.

BIOLOGY 32

Texts

Modern Biology, 1963 Edition, Moon, Otto and Towle

Laboratory Exercises for Introductory Biology, Department of Education

Unit 1—Introduction

1. Science of Life — Chapter 1
2. Fundamental Properties of Life — Chapter 2
3. Chemical Basis of Life — Chapter 33
4. Structural Basis of Life — Chapter 4
(Structure of molecules should serve only to promote understanding and memorization should not be required)
5. Balance in the World of Life — Chapter 6
6. Vital Factors of the Environment — Chapter 7
Omit "Plant Formations of the United States", page 71. Include a survey of the Alberta situation based on the appropriate sections of RENEWABLE NATURAL RESOURCES OF ALBERTA
7. Functional Basis of Life — Chapter 5
8. Basis of Heredity — Chapter 49
9. Classification of Organisms — Chapter 8

Unit 2—Survey of Monera

1. Phylum Schizophyta — Chapter 10
2. Phylum Cyanophyta — Pp. 91-95

Unit 3—Survey of Protista

1. Phylum Chlorophyta — Pp. 95-100
2. Phylum Chrysophyta — Pp. 101-102
3. Phyla Phaeophyta — P. 101
4. Phylum Mycophyta - slime, molds, fungi.
Treat as in text: bread mold, yeast — Chapter 11
5. Phylum Mastigophora
Phylum Euglenophyta - *Euglena* — Chapter 20
6. Phylum Sarcodina - *Amoeba* — Chapter 20
7. Phylum Ciliata - *Paramecium* — Chapter 20
8. Phylum Sporozoa - *Plasmodium* — Chapter 20

Unit 4—Survey of Metaphyta (Kingdom Plantae)

1. Phylum Bryophyta — Pp. 127-130
2. Phylum Tracheophyta
 - a) Class Filicineae — Pp. 130-132
 - b) Class Gymnospermae — Pp. 139-141
 - c) Class Angiospermae
 - (i) General characteristics — Pp. 141-145
 - (ii) Root and absorption — Chapter 14 & 15
 - (iii) Stem — Chapter 16
 - (iv) Leaf — Chapter 17
 - (v) Flower — Chapter 18
 - (vi) Seeds — Pp. 216-219

Unit 5—Survey of Metazoa (Kingdom Animalia)

General features — Pp. 241-242

1. Phylum Porifera — Pp. 242-245, 715
2. Phylum Coelenterata - Hydra — Pp. 246-249, 715
3. Phylum Platyhelminthes - Planarians - general structure — Pp. 253-256, 716
Flukes - life cycle
Tapeworms - structure and life cycle
4. Phylum Nemathelminthes - *Ascaris* — Pp. 256-258, 716
Hookworm
Trichinella
5. Phylum Annelida - *Lumbricus*, Leeches — Pp. 258-262, 716
6. Phylum Mollusca — Pp. 265-269, 716
(general characteristics and examples)
7. Phylum Echinodermata — Pp. 269-271, 716
(general characteristics and examples)
8. Phylum Arthropoda — Chapter 24 & 25, Pp. 717
9. Phylum Chordata — Chapters 28-33, Pp. 718-720

Unit 6—The Human Body - Its Functions

1. Man's development - Evolutionary approach — Pp. 418-423
2. Physical organization — Pp. 423-431
3. The Respiratory System — Pp. 459-469
4. The Circulatory System — Chapter 38
5. The Excretory System — Pp. 469-475
6. The Nervous System — Chapter 39
7. The Body Regulators — Chapter 41
8. Reproduction — Chapter 21
Elements of Biology, Weisz

Unit 7—Heredity and Change

1. Basis of Heredity — Chapter 49
2. Principles of Heredity — Chapter 50
3. Applications - Hybridization, line breeding, Chromosomal aberrations — Pp. 637, 638, 640
4. Human genetics — Chapter 52
5. Changing Life — Chapter 53

Note: Teachers should consult the 1965 Curriculum Guide for Biology for more detailed information as to depth of coverage recommended for each topic.

Laboratory Exercises

All exercises in the authorized laboratory manual.

BUSINESS EDUCATION

RECORD KEEPING 10

(2-3-4 Credits)

Prerequisite: None.

Objectives

1. To develop an understanding of, and an appreciation for good record keeping in personal finance, in social organizations and in single-proprietorship business of trading and non-trading concerns.
2. To develop a familiarity with common business terms and their uses.
3. To inculcate habits of neatness, accuracy and legibility.
4. To provide an exploratory course in bookkeeping that will build interests and discover the aptitudes of the students in this subject.
5. To develop an understanding of the bookkeeping cycle.

Scope

1. Chapters 8, 9 and 10 are required of all students.
2. Minimum requirements:
 - i. Two-credit course—four additional chapters.
 - ii. Three-credit course—five additional chapters.
 - iii. Four-credit course—six additional chapters.

Text

Moore et al, *Record Keeping for Everyone*, Canadian Edition, 1957, AO41,
W. J. Gage Ltd., Scarborough, Ontario

Workbook

Workbook to accompany *Record Keeping for Everyone*, AO41

BOOKKEEPING 10

(5 Credits)

Prerequisite: None.

Objectives

1. To provide a basic training in bookkeeping.
2. To provide the foundation for more advanced training in accountancy.
3. To introduce common business terms in realistic settings.
4. To promote good business habits, including neatness in records and reports, accuracy in arithmetic, legibility in handwriting, basing judgment on facts, and meeting obligations promptly.
5. To give the student an understanding of the preparation of financial statements.

Scope

1. Chapters 1-19 of the text.
2. Randall Practice Set, Parts 1 and 2.

Text

Carlson et al, *20th Century Bookkeeping and Accounting*, Canadian Edition, Twenty-first Edition, B69, W. J. Gage Ltd., Scarborough, Ontario.

Workbook

Working Papers and Study Guides for above text, Chapters 1-19, B691

Practice Material

The Randall Practice Set, B613, W. J. Gage Ltd., Scarborough, Ontario

BOOKKEEPING 20

(5 Credits)

Prerequisite: "B" or better standing in Bookkeeping 10.

Objectives

1. To increase students' knowledge and technical competence by:
 - (a) Recording business transactions in the synoptic journal.
 - (b) Adapting bookkeeping methods to the business using columnar special journals.
2. To emphasize the function of bookkeeping records as an aid to management.
3. To stress the need for intelligent interpretation of bookkeeping records.

Scope

The basic requirements for this course are Chapters 20-32 inclusive, of the prescribed text. It is suggested that the annual statements of some large, Canadian companies be examined.

Text

Carlson et al, *20th Century Bookkeeping and Accounting*, Canadian Edition, twenty-first edition, B69, Chapters 20-32, W. J. Gage Ltd., Scarborough, Ont.

Workbook

Working Papers and Study Guides to accompany the above text.

Practice Material

Burton Hardware, B623, W. J. Gage Ltd., Scarborough, Ontario.
Voss and Howard Wholesale Leather Goods, Set 625, W. J. Gage Limited, Scarborough, Ontario.

ACCOUNTING 30

(5 Credits)

Prerequisite: "B" or better standing in Bookkeeping 20.

Objectives

1. To demonstrate how bookkeeping records can serve management in controlling and planning business operations.
2. To encourage attitudes of inquiry and logical interpretation of financial statements.
3. To study adaptations of other accounting systems.

Scope

The course will consist of the material in the text.

Text

Carlson et al, *20th Century Bookkeeping and Accounting*, Advanced Course, 21st Edition, W. J. Gage Ltd., Scarborough, Ontario.

Workbook

Workbook to accompany the text. B681

Practice Material

At least sets 1 and 2 below:

- (1) Burns, Crane & Gilbert, B664
- (2) Main Auto Supplies Co., B674
- (3) Parks Manufacturing Company (optional), B678

BUSINESS FUNDAMENTALS 10

(2-3-4-5 Credits)

Prerequisite: None.

Objectives

1. To acquaint the student with fundamental business practices and thereby help him to be a more skilful consumer of the goods and services of business.
2. To provide an introductory course in business practices and thus assist the student in discovering aptitudes, abilities and interests which will help him in making educational and vocational plans.
3. To acquaint the student with the relations that exist between business and society and show the importance of the part which business plays in the daily life of everyone.
4. To show the interdependence of individuals, business and government.
5. To develop an appreciation of the need for service, courtesy, business etiquette, co-operation and other desirable citizenship traits.

Text

Bruce, Heywood and Abercombie, *Business Fundamentals*, Revised Edition, McGraw Hill Co. Ltd., Toronto 4.
Workbook (Optional)
Workbook to accompany the text.

Teachers' Reference

Crabbe et al, *General Business*, Seventh Edition, G99, W. J. Gage Ltd., Scarborough, Ontario
Reed et al, *Introduction to Business*, The Macmillan Co. of Canada, 70 Bond Street, Toronto
Wilson-Eyster, *Consumer Economic Problems*, G16, Fifth Edition, W. J. Gage Ltd., Scarborough, Ontario
Wilhelms, Heimerl, *Consumer Economics — Principles and Problems*, McGraw Hill Co. Ltd., Toronto 4.

BUSINESS MACHINES 30

(5 Credits)

Prerequisite: None.

Priority is to be given those who have at least a "B" standing in Typing 10 and Bookkeeping 10.

Objectives

1. To familiarize the students with the various types of office machines, their relative advantages, their basic uses, and operating procedures.
2. To specialize in the use of a few of the machines.

3. To give training in setting the decimal points correctly for the various processes, and in using common sense methods of checking results.
4. To develop facility in work with fractions and percentages.
5. To give training in cutting stencils and master copies.
6. To give training in operating the common types of duplicating machines.
7. To provide experience in the use of dictating and transcribing machines.
8. To insist on business standards for accuracy and neatness and to get the job done in a reasonable time.

Scope

Familiarization with the following types of business machines:

1. Duplicators
2. Full Keyboard Listing Adding Machines
3. Ten-Key Adding Listing Machines
4. Rotary or Crank Driven Calculators
5. Key Driven Calculators
6. Electric Typewriters
7. Dictating and Transcribing Machines
8. Bookkeeping and Billing Machines
9. Miscellaneous office appliances and machines

Texts

Appropriate texts to be chosen from the following:

- Agnew, *Office Machines Course*, Second Edition, M59, W. J. Gage Ltd., Scarborough, Ontario
- English et al, *Machine Calculation*, Pitman Publishing Co. Ltd., Toronto
- Fasnacht, *How to Use Business Machines*, Overview Course, McGraw Hill Co. Ltd., Toronto
- Walker, et al, *How to Use Adding and Calculating Machines*, McGraw Hill Co. Ltd., Toronto.

LAW 20

(3 or 5 Credits)

Prerequisite: None.

Objectives

1. To give the student a knowledge of the fundamental principles of law that govern the conduct of business activities.
2. To cultivate traits of good citizenship, especially those of respect for the rights of others, honesty, and justice.
3. To develop a respect for, and obedience to, the law.
4. To develop an understanding of the functions and purposes of law in our democratic society, including the development of our legal system and the courts that administer justice.
5. To assist the student in knowing his rights and when to seek legal advice.
6. To emphasize the need and use of precise English.
7. To develop in the individual student the ability to see both sides of a problem.

8. To familiarize the student with commonly used legal papers and documents and with the use of those which do not ordinarily require the services of a lawyer.

Scope

1. 3 credits - **Minimum requirements, Units 1-9 and Units 12 and 13 of the authorized text.**
5 credits - **Coverage of all of the material in the authorized text, and in addition, a study of selected Alberta statutes. It is expected that teachers will choose those statutes that have particular significance to students in the attendance area of the school, e.g., The Labor Act for an industrialized area, and the Highway Traffic Act for any area in the Province.**
2. Contracts.
3. The ownership of land, title to land and registration of title, leases, landlord and tenant, notice to vacate; mortgages and foreclosure; protection of an interest in land, caveat; taxes on real property; special rights, mineral, water, etc.; documents, and liens.
4. Negotiable instruments: note, cheque, draft, bill of exchange; banking, interest; insurance; principal and agent, sales, bailment, pledge and lien, guarantee and suretyship.
5. Common business forms: power of attorney, simple contract, lien note, instalment note, etc.
6. Partnership and companies: different types of company; bankruptcy.
7. Succession: Wills.
8. Master and Servant: Workmen's Compensation.
9. Libel and slander.
10. Liability for accidents—traffic accidents; negligence; accident insurance.
11. The course of law and court procedures; police courts; civil and criminal law; the Criminal Code; crimes and misdemeanors.
12. The civil liberties of the subject; Habeas Corpus; freedom of speech and assembly; freedom of the press.

Text

Jennings, *Canadian Law*, 1960 Edition, The Ryerson Press, Toronto.

Workbook

Jennings, *Workbook in Canadian Law*, The Ryerson Press, Toronto.

Teachers' References

- Walker, *Teachers' Manual on Business Law*, The Ryerson Press, Toronto
- Anger, *Summary of Canadian Commercial Law*, Sir Isaac Pitman & Sons Ltd., Toronto
- Fickett, Cordell, *Colorful Teaching in Business Law*, J. Weston Walch, Box 1075, Portland, Maine
- Falconbridge and Smith, *Manual of Canadian Business Law*, Western Edition, Sir Isaac Pitman & Sons Ltd., Toronto
- Schneider et al *Personal Business Law*, McGraw Hill Co., Toronto 4.

MATHEMATICS 11

(5 Credits)

MATHEMATICS 21

(5 Credits)

Prerequisites: There is no prerequisite for Mathematics 11. For business education students it is expected that a "B" standing in Mathematics 11 will be the prerequisite for Mathematics 21.

Introduction

Basically these are courses for business education students. For these students Mathematics 11 and 21 involve the application of the four fundamental operations and other mathematical concepts to business transactions. In the application of these fundamental operations to business situations, stress should be upon accuracy and speed. Accuracy without reasonable speed cannot meet the competitive requirements in today's business life; speed without accuracy is valueless both to the employer and the individual worker.

Objectives

1. To attain a vocational standard of accuracy and speed in performing the fundamental operations with integers, fractions and decimals commonly used in business.
2. To consider problems as actual business transactions, not as mere textbook statements.
3. To develop skill in estimating the reasonableness of answers and in the use of practical short-cuts.
4. To develop power to think analytically and logically in solving practical problems.
5. To develop the ability to apply formulae to the solution of practical problems.

Scope

Coverage of the material in the prescribed texts. Teachers should feel free to vary the emphasis on individual sections to meet particular needs.

Texts

Mathematics 11

Lund, *Canadian Business Mathematics, Book I*, McGraw-Hill

Mathematics 21

Lund, *Canadian Business Mathematics, Book II*, McGraw-Hill.

MERCHANDISING 20

(5 Credits)

Prerequisite: None.

Objectives

1. To present occupational opportunities in the distributive fields in the business community.
2. To develop in the student the ability required for initial performance on the job.

3. To provide a basis for further study and experience.
4. To develop an appreciation of the part distribution plays in our free enterprise society.

Scope

1. The teacher should undertake to cover as many of the areas listed in either text as is consistent with student interest, ability and experience.
2. It is suggested that each student be required to present at least one piece of research during the year.

Texts

1. Wingate and Weiner, *Retail Merchandising*, Sixth Edition, W. J. Gage.
2. G. E. Seguin, *Basic Retailing*, Pitman.

Workbooks

Workbooks which accompany the texts are available.

Teachers' References

1. *Retailing Principles and Practices*, 4th Edition by Richert, Meyer and Haines; Gregg Publishing Company
Workbook to accompany this.
Instructors Manual available.
2. *Basic Retailing*, by Reich, Feldman and Levy; Sir Isaac Pitman and Sons
Workbook for Basic Retailing.
3. *How To Be A Successful Retailer In Canada*, by Harold Shaffer; McGraw-Hill
4. *Retailing Problems and Projects*, by Richert and Stoner, Gregg Publishing Company
A text-workbook.
5. *Fundamentals of Selling*, 7th Edition, by Wingate and Nolan; W. J. Gage and Company
6. *Fundamentals of Advertising*, 6th Edition, by Rowse and Nolan; W. J. Gage and Company
7. The National Cash Register Company has available a large and extremely fine collection of pamphlets and aids.
e.g. 1. *How To Keep Customers Buying*
2. *Today's Revolution In Retail Merchandising*
3. *Cash Registers — Their Place In Modern Retail Security*
4. *Toward Successful Service Station Management*
5. *Credits And Collecting*
6. *Expenses In Retail Business*
7. *Making Your Windows Work For You*
8. *Controlling Merchandise*
9. *Pointing The Way Toward Merchandising Today*
8. *Salesmanship*, by Gregory; Sir Isaac Pitman and Sons
9. *Salesmanship Fundamentals*, by Ernest and Davall; Gregg Company
Also excellent Periodicals:
Financial Post
Canadian Retailer; MacLean Publishing Company

OFFICE PRACTICE 20

(5 Credits)

Prerequisite: "B" or better standing in Typewriting 10.

In addition, it is strongly recommended that Typewriting 20 be taken concurrently with Office Practice 20.

Objectives

1. To develop correct business attitudes on the part of the students.
2. To review and expand the students' business knowledge through the performance of actual business duties.
3. To impress on the students the relationship that exists between efficient planning and volume of output.
4. To familiarize the students with office routine and related business problems so that they will be confident and well-prepared when they enter employment.

Scope

1. Office Organization
2. General Office Duties
3. Business Information and Business Practice
4. Filing
5. Search for Employment
6. Machines
7. Business Correspondence

Text

Sparling, *A Complete Course in Office Practice*, Second Edition, McGraw-Hill

and one of:

1. Bassett-Agnew, *Filing Office Practice Set*, E981, W. J. Gage
2. M. D. Smith, *Canadian Filing Practice*, Pitman

Teachers' References

Archer et al, *General Office Practice*, McGraw Hill Co., Toronto 4
Kahn-Yenan, *Progressive Filing*, McGraw Hill Co., Toronto 4
Agnew et al, *Clerical Office Practice*, McGraw Hill Co., Toronto 4
Alsop & McBride, *She's Off to Work — A Guide to Successful Living*, Vanguard Press, New York
Gregg, *Applied Secretarial Practice*, Second Edition, Gregg, McGraw Hill Co., Toronto
Harris, *Business Offices*, Gregg, McGraw Hill Co., Toronto 4
MacGibbon, *Fitting Yourself for Business*, McGraw Hill Co., Toronto 4 (Valuable for Units 1 and 3)
Moreland, *Typewriting and Office Practice*, Sir Isaac Pitman & Sons Ltd., Toronto
Strony-Greenway, *The Secretary at Work*, McGraw Hill Co., Toronto 4
Frasnacht, *How to Use Business Machines*, McGraw Hill Co., Toronto 4

Office Practice 30

(5 Credits)

Prerequisite: "B" or higher standing in Office Practice 20. It is recommended that students offer "B" or better standing in Typewriting 20.

Objectives

To develop in the students:

1. Desirable traits and work habits.
2. Efficiency in the production of mailable units of work.
3. Facility in the composition of business letters.

Scope

Coverage of material in either prescribed text.

Texts

Agnew et al, *Secretarial Office Practice*, Sixth Edition, W. J. Gage

Gregg et al, *Applied Secretarial Practice*, Fifth Edition, McGraw-Hill

Workbooks

Workbooks which accompany the texts are available.

Teachers' References

Hager et al, *Business English Essentials*, McGraw Hill Co., Toronto

Robertson, Carmichael, *Business Letter English*, McGraw Hill Co., Toronto

Mayo, *Communications Handbook for Secretaries*, McGraw Hill Co., Toronto

Aurner, *Effective Business English*, E15, W. J. Gage Ltd., Scarborough, Ontario

Larison, *How to Get and Hold the Job You Want*, Longmans, Green & Co., Toronto

Warner, *Canadian Commercial Correspondence*, Sir Isaac Pitman & Sons Ltd., Toronto

Basset-Agnew, *Business Filing*, E98, W. J. Gage Ltd., Scarborough, Ontario

SHORTHAND

Minimum Requirements:

	Minimum Words Minute	Minimum Transcrib- ing Rate
Shorthand 10 (Practiced Material)	50	—
Shorthand 20 (Unpracticed Material)	70	15
Shorthand 30 (Unpracticed Material)	90	25

SHORTHAND 10

(5 Credits)

Prerequisites: Shorthand should be attempted in Grade X only by students who have above average achievement on Grade IX departmental examinations. Further, shorthand should be attempted only by those students who intend to take more than one year of the work — Shorthand 10 is only an introductory course.

Objectives

1. To develop the ability to take dictation at a minimum of 50 words per minute on practiced material.

2. To apply the principles of shorthand to a writing vocabulary of high frequency words and their derivatives as outlined in the prescribed textbook.
3. To develop skill and fluency in writing neat and accurate outlines of good style from simple practiced material.
4. To develop skill in reading intelligently and rapidly from engraved shorthand plates and from pupil's own notes.
5. To give some practice in transcribing simple sentences and paragraphs so that the basic skills of shorthand and typewriting may be correlated.

SHORTHAND 10 (PITMAN)

Scope

Assuming that there are approximately 35 weeks in the school year, a plan for the year should provide for complete coverage of the introduction and the 60 lessons in approximately 30 weeks, and thus leave 5 weeks for the review. Some practical material should be dictated from the beginning.

Texts

New Basic Course in Pitman Shorthand, Sir Isaac Pitman & Sons Ltd., Toronto
Student's Shorthand Dictionary and Phrase Book, Sir Isaac Pitman & Sons Ltd., Toronto
Progressive Skill Development, Sir Isaac Pitman & Sons Ltd., Toronto. May be used to advantage in all classes.

Optional Material (Pitman)

Pitman Shorthand Workbook, Sir Isaac Pitman & Sons, Toronto
Pitman Monographs and Tests, Sir Isaac Pitman & Sons Ltd., Toronto
Walsh, Reading and Dictation Studies, Sir Isaac Pitman & Sons Ltd., Toronto
Short Stories, Volumes 1 and 2, Sir Isaac Pitman & Sons Ltd., Toronto

SHORTHAND 10 (GREGG)

Scope

Coverage of prescribed texts.

Texts

Gregg Shorthand, Diamond Jubilee Series (Canadian Edition) Gregg, Leslie & Zoubek
or
Gregg Shorthand, Functional Method, Diamond Jubilee Series: Leslie & Zoubek
or
Gregg Shorthand Manual Simplified, First Term, Second Edition, McGraw Hill Co., Toronto
or
Gregg Shorthand Manual Simplified (Functional Method), Second Edition, McGraw Hill Co., Toronto

Optional Material (Gregg)

Work-book to accompany Gregg Shorthand, Diamond Jubilee Series (including Functional Method)

Workbook for Gregg Shorthand Manual (Including Functional Method), Second Edition, McGraw Hill Co., Toronto
Most-Used Shorthand Words and Phrases (Simplified Edition), McGraw Hill Co., Toronto
Graded Transcribing Tests in Gregg Shorthand Simplified, Second Edition, McGraw Hill Co., Toronto
Gregg Shorthand Dictionary Simplified (Canadian Pocket Edition), McGraw Hill Co., Toronto

SHORTHAND 20

(5 Credits)

Prerequisites: "B" or better standing in Shorthand 10 and Typing 10.

Introduction

Students should be required to take Typewriting 20 with Shorthand 20. Unless the student has the skill required for Typewriting 20 the problem of transcription will be exceedingly difficult. **It is desirable to schedule the typewriting period immediately following the shorthand period to promote effective development of the transcription skills.**

The student should expand his shorthand vocabulary by means of supplementary reading and through the use of the shorthand dictionary.

Objectives

1. The Shorthand 20 course should enable the student to develop his reading and writing of shorthand as well as his transcribing skills. Hence, the greater part of each teaching period should be devoted to the development of these skills.
2. Dictation at a minimum of 70 wpm on unpracticed material and transcribed at 15 wpm.
3. Shorthand 20 may be enriched for a superior or a more mature group to reach a degree of vocational competence.

SHORTHAND 20 (PITMAN)

Scope

Coverage of either prescribed text plus as much additional reading material as possible.

Texts

Pitman Shorthand Dictation and Transcription, Sir Isaac Pitman & Sons, Toronto

Simon Duchan, *Basic Dictation*, Sir Isaac Pitman & Sons Ltd., Toronto

Optional Material (Pitman)

Steps to Success in Shorthand, Book 1, Sir Isaac Pitman & Sons Ltd., Toronto

Shorthand Speed Drills, Sir Isaac Pitman & Sons Ltd., Toronto

Graded Office Style Dictation, Sir Isaac Pitman & Sons Ltd., Toronto

The Pitman Journal, Sir Isaac Pitman & Sons Ltd., Toronto

Tapes and Dictation Discs, Sir Isaac Pitman & Sons., Toronto

Alston, *Successful Devices in Teaching Shorthand*, J. Weston Walch, Box 1075, Portland, Maine.

SHORTHAND 20 (GREGG)

Scope

Coverage of prescribed texts plus as much additional reading material as possible.

Texts

Gregg Dictation, Diamond Jubilee Series (Canadian Edition): Leslie, Zoubek & Strony

Gregg Dictation Simplified, Second Term, Second Edition, McGraw Hill Co. Toronto

Optional Material (Gregg)

Transcription Work-book to accompany Gregg Dictation, Diamond Jubilee Series: Leslie, Zoubek & Strony

Progressive Dictation With Previews, Zoubek, McGraw Hill Co., Toronto,

Gregg Shorthand Dictionary Simplified, McGraw Hill Co., Toronto

Tapes and Dictation Discs, McGraw Hill, Co., Toronto

Successful Devices in Teaching Shorthand, Alston J. Weston Walch, Box 1075, Portland, Maine

Student's Transcript of Gregg Dictation Simplified, Second Edition, McGraw Hill Co., Toronto

Transcription Workbook for Gregg Dictation Simplified, Second Edition, McGraw Hill Co., Toronto

SHORTHAND 30

(5 Credits)

Prerequisites:

"B" or better standing in Shorthand 20 and in Typewriting 20.

Objectives

1. To meet standards of business entrance. (Check with local standards.)
2. Dictation at a minimum of 90 wpm on unpracticed material and transcribed at 25 wpm, mailable copy with carbon copy and envelopes.

Scope

Sufficient material to meet the above objectives.

Texts

Either Pitman or Forkner, Osborne and O'Brien, *Correlated Dictation and Gregg Shorthand: Transcription*, Sir Isaac Pitman & Sons Ltd., Toronto

- Pitman Shorthand:** Aitchison, *Pitman Advanced Dictation Course*, Sir Isaac Pitman & Sons Ltd., Toronto
- Gregg Shorthand:** Zoubek, *Gregg Advanced Dictation Simplified*, McGraw-Hill Book Company of Canada Ltd., Toronto
- Gregg Transcription, Diamond Jubilee Series:* Leslie & Zoubek
- Gregg Speed Building, Diamond Jubilee Series:* Leslie & Zoubek

Optional Materials

Steps to Success in Shorthand, Book 2, Sir Isaac Pitman & Sons Ltd., Toronto
Records and tapes as listed in current catalogs

Access to a Secretarial Handbook

Teacher's Handbook to accompany Gregg Advanced Dictation Simplified—contains the word count for the letters

Work-book to accompany Gregg Transcription, Diamond Jubilee Series, Leslie & Zoubek

Work-book to accompany Gregg Speed Building, Diamond Jubilee Series: Gregg, Leslie & Zoubek

TYPEWRITING 10

(3 or 5 Credits)

Prerequisite:

None

Texts

Rowe et al, *Gregg Typing, Complete Course*, Second Edition, McGraw Hill Co., Toronto 4

Lessenberry et al, *20th Century Typewriting Course*, Seventh Edition, T50, W. J. Gage Ltd., Scarborough, Ontario

Gregg Typing 191 Series, Book I: General Typing (Canadian Edition): Rowe, Lloyd & Winger

Gregg Typing 191 Series, Book II: Office Production Typing: Rowe, Lloyd & Winger

Optional Materials

Workbooks and teacher's manuals to accompany the texts

Working Papers to accompany Gregg Typing 191 Series, Book I: General Typing, Parts 1-6 (Canadian Edition): Rowe, Lloyd & Winger

Learning Guides and Working Papers to accompany *Gregg Typing 191 Series, Book I: General Typing, Parts 7-12 (Canadian Edition)*

TYPEWRITING 20

(5 Credits)

Prerequisites: "B" or better standing in Typing 10.

Texts

Rowe et al, *Gregg Typing*, Complete Course, Second Edition, McGraw Hill Co., Toronto 4

Lessenberry et al, *20th Century Typewriting Course*, Seventh Edition, T50, W. J. Gage Ltd., Scarborough, Ontario

Optional Materials

Workbooks and teacher's manuals to accompany the texts.

Scope

Lessons 76-175 in either text.

Suggested Evaluation of Typewriting 20:

Speed and Accuracy	40%
Problem and Production Work	60%

TYPEWRITING 30

(5 Credits)

Introduction

Prerequisites: "B" or better in Typing 20.

Texts

Rowe et al, *Gregg Typing*, Complete Course, Second Edition, McGraw Hill Co., Toronto 4

Lessenberry et al, *20th Century Typewriting Course*, Seventh Edition, T50, W. J. Gage Ltd., Scarborough, Ontario

Optional Materials

Workbooks and teacher's manuals to accompany the texts.

Scope

Lessons 176-300 in either text plus supplementary materials.

Suggested Evaluation of Typewriting 30:

Speed and Accuracy	20%
Problem and Production Work	80%

DATA PROCESSING 32

Text

Business Data Processing, Elias M. Awrd, 1965, Prentice Hall

Prerequisite: None

Objectives

The students will develop:

- (1) Communicative and computational skills.
- (2) An understanding of the principles involved in the processing of data.
- (3) A vocational competency in machine operation.
- (4) A basic competence in the application of systems and in elementary programming of electro-mechanical and electronic data processing equipment.
- (5) An understanding of the principles involved in accounting and office procedure.
- (6) Saleable skills to facilitate entry into industry in a productive capacity.

Scope

- I INTRODUCTION AND ORIENTATION
- II INTRODUCTION TO PUNCHED CARD SYSTEMS
- III THE UNIT RECORD
- IV UNIT RECORD EQUIPMENT
- V THE KEY PUNCH
- VI PROGRAM TAPE INSTRUCTION
- VII VERIFYING PROCEDURES
- VIII THE SORTER
- IX THE CARE OF KEY PUNCH AND SORTER
- X THE REPRODUCING PUNCH
- XI THE 402 ACCOUNTING MACHINE
- XII FUNCTIONAL WIRING PRINCIPLES
- XIII INTRODUCTION TO PROGRAM-FLOW CHARTING
- XIV PUNCHED TAPE AND OTHER INPUT MEDIA
- XV INTRODUCTION TO THE ELECTRONIC COMPUTER SYSTEM
- XVI FIELD TRIP
- XVII CASE-STUDY APPLICATIONS

FOREIGN LANGUAGES

Objectives

1. To understand, to speak, to read and to write the language as well as possible.
2. To obtain a thorough knowledge of the grammar and sentence structure of the language and habits of accurate pronunciation and good intonation.
3. To assimilate along with the language the culture of the people and some knowledge of their history, customs and traditions.

FRENCH FRENCH 10

Textbooks

One of the following to be chosen:

- (a) *Le Français Vivant* by Stock et al
- (b) *New Junior French* by O'Brien and La France
- (c) *Premières Années de Français* by Kieser

Content

In order that the level of grammatical knowledge at the end of French 10 be uniform, it is suggested that the indicated grammatical points supplement the prescribed chapters of the text chosen.

1. *Le Français Vivant*
 - (a) Introductory Lessons
 - (b) Lessons 1-20
 - (c) Supplementary grammatical point:
 - i. Imperative — page 200
2. *New Junior French*
 - (a) Lessons 1-20
 - (b) Supplementary grammatical points:
 - i. Numerals, 70-100, page 432
 - ii. Position of adverbs, page 344
 - iii. Expression of quantity, pages 299 and 300
3. *Premières Années de Français*
 - (a) A Conversational Introduction to French, pages 19-61
 - (b) Chapters 1-24
 - (c) Supplementary grammatical point:
 - i. Position of adverbs, page 205

Readers

One reader is prescribed for French 10, the reader to be selected from the following:

Title	Author	Publisher
<i>Contes</i>	Calvert	Longmans
<i>Pierre et les Cambrioleurs</i>	Gilbert	Macmillan
<i>Le Cirque Zanzibar</i>	Lafitte	Macmillan
<i>Pierre Au Village</i>	Sheila Smith	Clarke-Irwin
<i>A First French Reader</i>	Whitemarsh	Longmans Green
<i>Douze Contes</i>	Yandel	Clarke-Irwin

FRENCH 20

The textbook used in French 10 should continue to be used in French 20.

1. *Le Français Vivant*
 - (a) Lessons 21-35 and the supplementary lesson, pages 266-268
 - (b) Supplementary grammatical points:
 - i. Partitive article
 - ii. Pluperfect
 - iii. Conditional
2. *New Junior French*
 - (a) Lessons 21-40
 - (b) Supplementary grammatical points:
 - i. Past definite
 - ii. Past indefinite of reflexive verbs
3. *Premières Années de Français*
 - (a) Lessons 25-46
 - (b) Supplementary grammatical points:
 - i. Past definite
 - ii. Delete (b) p. 128 and insert partitive article
 - iii. Quand, lorsque and use of implied future
 - iv. Conditional

Readers

No reader is prescribed for French 20. However, teachers are encouraged to choose one or more readers from the following list. This list does not prohibit teachers from adding other readers.

Title	Author	Publisher
<i>Beginning Readings in French</i>	Milligan	Macmillan
<i>Enfants de Paris</i>	C. A. Roe	Longmans
<i>A First French Reader</i>	Whitmarsh	Longmans
<i>Lectures Choiesies</i>	Steinhauer	Macmillan
<i>Premières Lectures Culturelles</i>	Croteau and Selvi	American Book Company
<i>Rions Ensemble</i>	Humphreys and Sanouillet	University of Toronto Press
<i>Antoine, Chasseur</i>	Lafitte	Macmillan
<i>Les Belles Histoires</i>	C. A. Roe	Longmans
<i>Le Casque Invisible</i>	M. Ceppi	Clarke-Irwin
<i>Petits Contes de l'Histoire Canadienne</i>	H. S. Fumerton	Macmillan
<i>Roland</i>	Purvis and White	Oxford
<i>Berthe aux Grands Pieds</i>	Purvis and White	Oxford
<i>Huon de Bordeaux</i>	Purvis and White	Oxford

FRENCH 30

Textbook

Senior French by O'Brien, La France and Jones

Content

1. Lessons 1-28 and Aperçus I to V inclusive.
2. The following selections may be omitted although it is desirable that more advanced students be encouraged to study them.

Lesson II	pp. 14-16, Parts A and B
Lesson IV	p. 33, Parts A and B
Lesson VI	p. 49, Part B
Lesson XIII	pp. 122-123, Lecture supplémentaire
Lesson XX	pp. 198-199, Lecture supplémentaire
Lesson XXVII	pp. 270-271, Lecture supplémentaire

3. Teachers are encouraged to use the various songs in the textbook.
4. *Senior French* contains five appendices (pp. 365-416). These are valuable to teacher and pupil for reference.
5. Preliminary work with verbs should be attempted before the class begins the book proper. The Schema on p. xii may be used as an introductory guide in teaching and reviewing the tenses. The tenses not covered in the first two years of French will be taught as part of the French 30 course.

The past anterior and the imperfect and pluperfect subjunctive may be met in reading but students will not be tested on these tenses in the June examination in French 30.

Readers

No reader is prescribed for French 30.

FRENCH 31

This subject will continue to be offered to superior students on the approval of the high school inspector.

GERMAN

GERMAN 10

Textbook

Deutschs Verstehen und Sprechen by Rheder, Thomas, Twaddell, O'Connor.

Related Materials

Use of all teaching aids prepared by the authors to accompany the textbook are strongly recommended; the *Teacher's Edition*, the *Übungsbuch* and the TAPE RECORDINGS offer invaluable assistance in teaching this course.

Approach and Coverage

It is recommended that the whole of Lessons I to III, and the introduction of each subsequent lesson, be presented in a complete oral-aural approach.

Difficulties in covering the material of the text may be met by omitting two or three of the Conversations in each unit from Unit 15 on. More capable students should be encouraged to read these selections outside of class.

GERMAN 20

Textbook

Deutschs: Sprechen und Lesen by Rheder, Thomas, Twaddell, and O'Connor.

Related Materials

Use of the *Teacher's Manual* and the TAPE RECORDINGS is strongly recommended.

Approach and Coverage

It is suggested that, at the beginning of the German 20 course, the grammatical patterns established in German 10 be reviewed, using the material of textbook and tapes (or records) of the German 10 course. In addition ample time should be provided to cover the first three chapters of *Sprechen und Lesen* which contain material familiar to the student from German 10 while easing him into study habits better suited to German 20 than those acquired in the previous course.

Experience has shown that the German 20 textbook in spite of its apparent difficulties, can be covered well in time available. The suggested review and introduction might therefore be extended into mid-November.

GERMAN 30

Textbook

Foundation Course in German (Revised Edition) by Homberger and Ebelke.
Use of the accompanying TAPE RECORDINGS is recommended.

Approach and Coverage

1. Oral competence must be maintained and extended while introducing students to the systematic presentation of formal grammar.
2. The material up to p. 204 should be covered by Christmas.
3. The students' ability to write short paragraphs or compose dialogues on the materials of the textbooks (or similar experiences and situations) must be developed.

Optional Supplementary Reading

No readers will be prescribed for German 30 for 1964-65, but the following readers may be recommended as additional reading to students with better-than-average ability.

Kulturresebuch für Anfänger, Harry Steinhauer (Editor, New York: The MacMillan Company, 1961) graded selections dealing with German life and literature.

Emil und die Detektive, Kästner. (Clarke, Irwin and Co. Ltd.)

Die verschwundene Miniatur, Kästner. (D. C. Heath and Co.)

Glückauf, a magazine appropriate for use in Grades XI and XII, published six times yearly by The House of Grant Ltd., Toronto 16, 29 Mobile Drive.

It is recommended that a copy of a large desk-type German-English, English-German Dictionary be available in every classroom where German is taught.

LATIN

LATIN 10

Texts

Latin For Canadian Schools, Breslove and Hooper.
Julia — A Latin Book, M. Reed.

Content

Latin For Canadian Schools

Page	Exercise	Page	Exercise
61	D	142	D & E
66	D	156	C
71	C	164	D
77	C	173	D
83	E	185	E
95	D	190	D & E
104	D	195	E
128	D	195	E

Julia

Sections 1-27 inclusive omitting nos. 17, 18, 19, 20, 21. Suggested integration with Breslove and Hooper:

Breslove and Hooper

After Chapter 10
 After Chapter 13
 After Chapter 16
 After Chapter 21
 After Chapter 23

Julia

Selections 1-4 inclusive
 Selections 5 and 6 inclusive
 Selections 7-12 inclusive
 Selections 13-16 inclusive
 Selections 22-27 inclusive

LATIN 20

Texts

1. *Latin For Canadian Schools*, Breslove and Hooper
 Chapters 36-61 inclusive
2. *Selected Latin Readings*, Taylor and Prentice
 Section Two, Part I — pages 87-99 inclusive (lines 413-534)
The Life of Caesar, Suetonius et al

LATIN 30

Texts

Latin For Canadian Schools, Breslove and Hooper
 Chapters 62-82 inclusive
Selected Latin Readings, Taylor and Prentice
 (i) Cycle I (1964-65 and alternate years)
 (a) Section One, Part I, pages 31-40 (lines 1-106)
 The Life of Hannibal: Nepos
 (b) Section One, Parts II and III, pages 41-72 (lines 107-412)
 Hannibal's Star Rises: Livy
 Hannibal's Star Sets: Livy

(ii) Cycle II (1965-66 and alternate years)

(a) Section One, Part I, pages 31-40 (lines 1-106)
The Life of Hannibal: Nepos

(b) Section Two, Parts II, III and IV, pages 100-152 (lines 535-937)
Caesar in Britain: Caesar (omit para. 8, lines 635-651)
The Battle of Pharsalus: Caesar (omit par. 2, lines 670-686)
Caesar, the General: Caesar (omit par. 3, lines 838-855)

UKRAINIAN

Objectives of the Three-Year Program

1. Ability to carry on everyday conversation in Ukrainian.
2. Ability to read and comprehend Ukrainian literature which is written in a simple style.
3. A good knowledge of the basic grammar of the language.
4. An acquaintance with the geography, history and culture of the Ukraine.
5. A desire to continue the study of Ukrainian and one or other Slavonic languages.

UKRAINIAN 10

Course Content

1. The alphabet.
2. Grammatical structure of the language (introduction).
3. Parts I and II in *Ukrainian For Beginners* for detailed study.
4. Part III of *Ukrainian For Beginners* for oral reading.
5. Lessons 1 to 15 of *Conversational Ukrainian* by Yar Slavutych.

UKRAINIAN 20

1. Review Lessons 1 to 15 from Ukrainian 10 using *Conversational Ukrainian*.
2. Lessons 16-45 inclusive from *Conversational Ukrainian*.
3. Free Reading.

UKRAINIAN 30

1. Review of grammar and vocabulary of lessons in Ukrainian 10 and 20.
2. Lessons 46-70 in *Conversational Ukrainian*.
3. Appendix (pages 566-576 of *Conversational Ukrainian*).
4. Lessons 71-75 of *Conversational Ukrainian* to be used as enrichment material for advanced students.
5. Free reading. Continue as in Ukrainian 20 but to include at least one novel.

RUSSIAN

OBJECTIVES OF THE PROGRAM

1. Ability to carry on everyday conversation in Russian.
2. Ability to read and comprehend Russian which is written in a simple style.
3. A good knowledge of the basic grammar of the language.
4. An acquaintance with Russian culture.
5. An interest in the Russian language and culture.
6. A background knowledge of Russian for students who will pursue scientific studies at the university.

RUSSIAN 10

Text

First Course in Russian—Part One—Doherty and Markus

1. Introductory Chapters
2. Lessons 1 to 16

RUSSIAN 20

Text

First Course in Russian—Part Two—Doherty and Markus

1. Lessons 17 to 28

Reader

Recommended but none has been prescribed

HEALTH AND PERSONAL DEVELOPMENT

Primary References

1. *Health For Canadians*: Chittick
2. *Personal Problems*: Geisel

Teachers' References

It is felt that a teacher offering the course at any or all grade levels should have access to the following references:

- (a) *Psychology For Living* — Sorenson and Malm
(If a copy of Averill's *Introductory Psychology* is available it will be useful as an alternative.)
- (b) *Health Observation of School Children* — Wheatley and Hallock

Teachers will find one or more of the following references useful for background material in those sections of the course in Grades IX and X dealing with alcohol:

- (a) *Manual of Reference For Alcohol Education*,
Department of Education, Manitoba.
- (b) *Manual Of Reference For Alcohol Education*,
Department of Education, B.C.
- (c) *Alcohol Education, A Guide Book For Teachers*, Hirsch.
- (d) *Teen-agers And Alcohol*, McCarthy.

Content

Unit 1—Success In High School

Orientation
Learning

Unit 2—Our Physical Growth Into Adulthood

The Nature of the Body
Functions of the Body

Unit 3—Canada's Progress in Public Health

Why Public Health Services?
Improvement of World Health
The General Health Picture in Canada
Canada's National Health Program
Growing Recognition of the Alcohol Problem

Unit 4—Public Health In Alberta

Importance of Health Statistics
Public Health Measures in Alberta

Unit 5—Personality

The Meaning of Personality
Character
Personality Under Stress

Unit 6—Group Life

The Group's Responsibilities to the Individual
The Family Group
The Group and Leisure Time

Unit 7—Man's Marvellous Control System

The Nervous System and Its Work
Disorder in the Nervous System

Unit 8—Preventing Accidents and Meeting Emergencies

Protection in Public Transportation
Safety in Recreation
Safety in Industry
Alcohol and Safety

Unit 9—Selecting a Vocation

The Importance of Career Planning
The Importance of Interests and Aptitudes in Choosing a Vocation
Personality and Its Relationship to Vocational Choice
Job Families and Job Opportunities
Making the Most of Opportunities to Secure Employment
Effective Procedures in Applying for a Job
Making Good on the Job

OCCUPATIONS 10

Reference Books

Youth and the Modern World of Work: Clarke and Woodsworth
Job Monographs and Occupational Outlines

Objectives

1. To relate satisfactory work habits formed in school to possible success on the job.
2. To focus attention on the importance of desirable attitudes toward the world of work.
3. To encourage an awareness by the student of the changing nature of employment and its possible relationship to him.
4. To encourage each student to select a vocational area related to his abilities and interest.
5. To provide an opportunity for group guidance in the classroom.

Content

Unit I: Adequate Preparation

- A. Educational and vocational planning
 1. Types of planning
 2. Significance of course choice
- B. The importance of an education
 1. The cost of quitting school
 2. The reasons people drop out of school
 3. The experiences the drop-out encounters
 4. What the high school graduate brings to employment

Unit II: Occupational Exploration

- A. Occupations ahead
 1. Survey of the occupational field
 2. The Canadian occupational picture
- B. Classifications of occupations
 1. Dominion Bureau of Statistics Classification
 2. Other classifications
 3. Demand occupations
- C. Investigation of a particular occupation
 1. Need for occupational surveys
 2. Basic outline for the study of an occupation
- D. Investigation of an industry
 1. Influence of the industrial picture on career planning
 2. Adaptability essential in industrial change

Unit III: Opportunities for Training

- A. Kinds of training
 1. University

2. Institutes of Technology
 3. Vocational Programs
 4. Apprenticeship
 5. Agricultural and Vocational Colleges
 6. Business Colleges
 7. Schools of Nursing
- B. Financial assistance for training
1. Students Assistance Act
 2. Scholarships
 3. Armed Services
 4. Subsidized Apprenticeship
 5. Allowances

Unit IV: The Individual and the Job

- A. Analysis of interests and abilities
1. Interest and the job
 2. Abilities and the job
- B. Relationship of social and emotional characteristics to the job
1. Social characteristics
 2. Personal characteristics and the job
- C. Safety and the individual
1. The accident problem
 2. The cost of accidents
 3. Accident prevention responsibility
 4. Cause of accidents
 5. The role of training in accident prevention
 6. Preventive program
- D. Alcohol and the job
1. Historical background
 2. Reasons for drinking
 3. Effects in industry and the professions
 4. Effects upon individuals
 5. Rehabilitation

MUSIC

MUSIC 11, 21, 31

Objectives

1. To provide opportunities for students with little previous training in music to increase skill as performers and to increase sensitivity as listeners.
2. To encourage in such students a desire to continue their musical experiences after graduation.
3. To reveal the social significance of music by indicating how it often reflects the time and place of its composition.
4. To encourage students with talent and ability to continue in choral, orchestral and band courses.

Objectives for Instrumental Program (Music 11, 21, 31)

Performance

Through study and participation the student should develop:

1. A keen interest in playing an instrument.
2. Technical ability on the instrument so that he may later be able to attempt and appreciate more advanced music.
3. A knowledge of his instrument's mechanism and its care, and a general knowledge of all instruments employed in the band and orchestra.
4. A beautiful tone.
5. Skill in sight reading.
6. Good ensemble playing with respect to balance, tone, dynamics, intonation and interpretation.
7. A desire to continue performance in after school life.

Objectives for Choral Program (Music 10, 20, 30)

Performance

1. To develop control of the singing voice of each student within his natural range.
2. To develop each student's ability to sing in harmony.
3. To widen each student's experience with a variety of choral literature.

Music Literature

1. To train each student to become an appreciative listener to music.

Theory

1. To develop familiarity with time, that is, with all forms of duple and triple measurement of accent in music.

2. To develop familiarity with the *elements* of harmony (intervals and triads) at the piano, from the staff, and "by ear."
3. To develop familiarity with melodic patterns (phrases, sentences) and simple binary and ternary forms.
4. To develop ability to read simple melodies at sight.

MUSIC 10 AND 11

Primary References

Listening to Music, Fiske
Music Makers, Pitts et al

Course Content

1. Choral, Instrumental or Band

Performance
 Literature
 Theory

MUSIC 20 AND 21

Primary References

Music Makers, Pitts et al
Listening to Music, Fiske

1. Choral, Instrumental or Band

Performance
 Literature
 Theory

MUSIC 30 AND 31

Primary References: As for Music 20

1. Choral, Instrumental or Band

Performance
 Literature
 Theory

ART

ART 10, 20 30

ART 10

Section A

1. Art Structure (Design)

Line
Shape
Space
Color
Value or Tone
Texture

Principles of Design

Unity
Rhythm
Contrast
Gradation
Harmony
Variety
Dominance
Proportion
Balance

2. Color

Charts and Color Schemes
Color Circle
Intensity and Value

3. Picture Making and Illustration

Composition

4. Outdoor Sketching

5. Still Life

6. Figure Drawing and Portraiture

Life Drawing

7. Art Appreciation

Painting
Architecture
Sculpture
Industrial Design

8. School Art

9. Contemporary Art

Abstract and Non-Objective Design
Posters
Photography
Modern Architecture and Industrial Arts

10. **Lettering**
Forms
Spacing
11. **Layout and Poster Making**
Elements in a Poster
Layout
Lettering
12. **Sculpture or Three-Dimensional Form**
Modelling
Carving
Mixtures
Constructionism

Section B

1. **Interior Decoration**
2. **Costume Design**
3. **Textile Design**
4. **Art and Dramatics**
5. **Art and Music**
Illustration
For Design
For Mood
6. **Silk Screen Prints**
7. **Making a Mural**
8. **Photography**
9. **Commercial Art**
Fashion Drawing
Illustration
Cartooning
Showcards and Posters
Advertising and Layout — For Advanced Students
10. **Linoleum Block Printing**
11. **Perspective**
Types
Freehand Perspective
Parallel or One Point
Angular or Two Point
Circular

ART 20 AND 30

It is expected that the above material be used for Art 20 and Art 30 as well as Art 10. It is suggested that each teacher make outlines similar to that for Art 10, expanding and developing the topics suggested.

DRAMATICS

DRAMATICS 10, 20, 30

The Nature of the Dramatic Courses

The series of Dramatics Courses in the Alberta Schools is concerned with the techniques and processes necessary to bring a play to the stage. This involves a wide range of techniques and skills. These are courses *not* in dramatic literature, but in the activities involved in production: acting, make-up, costuming, stage-craft and lighting. The teaching of dramatics involves considerable technical knowledge and skills on the part of the teacher, and some equipment.

Specific Objectives

1. To develop an appreciation of the theatre through an understanding of the techniques and mechanics of play-productions: directing, acting, scene design, construction, stage lighting, costume design and execution, and make-up.
2. To broaden cultural interests through the study of plays and the study of the history and development of the theatre.
3. To encourage and develop activities and interests that will provide means for using leisure time pleasantly and profitably.
4. To give practical experience in rehearsal and production so as to develop qualities of co-operation, responsibility, initiative and a loyalty to a common cause.
5. To prepare a sound foundation for those pupils who plan to major in university drama, enter a professional school of the theatre, or to participate in community dramatics organizations.
6. To discover and develop talent in the arts of the theatre that may be a basis for future vocation or professional life.
7. To stimulate an interest in dramatics and the allied art forms of painting, architecture, music, dance, motion picture, radio and television.
8. To build imagination and broaden sympathies through the visualizing and analyzing of character and through the projection of the student's interpretation by means of voice and pantomime.
9. To develop an adequate and pleasant speaking voice and good diction according to regional standards.
10. To develop physical poise, improvement of posture, freedom and grace of movement.

N.B.: These are not textbook courses. They are courses in the theory and practice of stage techniques, as well as in the acquiring of a critical interest in and understanding of dramatics. In the following course outlines are indicated the techniques and areas of study considered basic within the limits of each course.

DRAMATICS 10

Introduction

The Dramatics 10 Course must serve two functions: it should provide a foundation for the two senior courses in dramatics, but it must also be a terminal course in itself since many students will not continue with the advanced courses. Many schools that offer Dramatics 10 will not be offering Dramatics 20 and 30. It would be advisable in such schools to include a brief history of the theatre in the Dramatics 10 course. Probably four to six lessons would be sufficient. (*The Stage and School* by Ommanney provides necessary material if other references are not available.)

The textbook for this course is *On Stage, Everyone* by Barnes and Sutcliffe.

Course Content

1. Acting
 - (a) Characterization—Mental
 - (b) Characterization—Physical
2. Design
3. Costuming
4. Stagecraft
5. Lighting
6. Interest and Application
7. Evaluation

DRAMATICS 20

Dramatics 20 is a course for those students who have shown particular interest in or aptitude for dramatics. This course should make greater demands upon the student than did Dramatics 10. It is hoped that the students in this class (possibly in conjunction with the students of Dramatics 30) will participate in the production of a full-length play for public performance. Each student should have experience in production since production is the goal of dramatics study. Participation, however, need not be in an acting capacity. Wherever possible production and stagecraft tasks should be performed by the students.

Text

Barnes and Sutcliffe, *On Stage, Everyone* Brett-MacMillan Publishing Company

Course Content

1. Acting
 - (a) Characterization
 - (b) Techniques
2. Production and Stagecraft
 - (a) The three-act play in relation to form, type and structure (plot, climax, theme, characterization).

- (b) The demands of the three-act play on the various personnel involved.
- (c) The choosing of a three-act play for school production.
- (d) The analysis of the script for production and the making of the prompt script.
- (e) Stagecraft (Refer to *Play Production*, Nelms).

3. History

- (a) Greek and Roman
- (b) Medieval
- (c) English Renaissance
- (d) Restoration
- (e) The Nineteenth Century

DRAMATICS 30

Text

Nelms: *Play Production*

Dramatics 30 is concerned primarily with giving individual help in any chosen field of theatre activity. Each student should be taken as far as possible within the limitations of time and his talents. The work of the course should be culminated in the public performance of a full length play (probably in conjunction with the Dramatics 20 students).

- 1. Acting
- 2. Design
- 3. Production
- 4. History
 - (a) Ibsen — Realism and Fantasy
 - (b) Shavian Realism
 - (c) The Irish Movement
 - (d) The English Poetic Movement
 - (e) American Naturalism
 - (f) American Impressionism
 - (g) American Symbolism and Expression

GEOGRAPHY 20

Preamble

Geography 20 is an elective for students of Grades XI and XII. The complete course consisting of Physical and Human Geography may be taken for five credits; Human Geography alone, comprising Units III, IV, and V, may be taken for three credits.

The purpose of the course is to strengthen the teaching of the physical and social sciences in the senior high school.

Primary References

Primary reference for Physical Geography, Units I and II:

World Geography—Physical by G. H. Dury (1958), published by Thomas Nelson and Sons, Ltd.

Primary reference for Human Geography, Units III, IV, and V:

General Geography (Alberta Edition) by J. Wreford Watson (1961) published by Copp Clark Publishing Co., Ltd.

Secondary References

Elements of Geography by Smythe and Brown, (1959), published by the Macmillan Company of Canada, Limited (useful for all units).

Earth Science, Bk. 1 and 2, by Namowitz, Stone, and Bird, published by D. Van Nostrand Company (Canada) Ltd., (Units I and II).

A Guide to Geology by David M. Baird, published by the Queen's Printer, Ottawa, (useful for Units I and II).

Canadian Oxford School Atlas, Oxford University Press, Toronto.

World Geography Human: Suggate, Thos. Nelson and Sons, Ltd., 91 Wellington Street West, Toronto 1, (Units III, IV and V).

Geography of Commodity Production: Highsmith and Jensen, J. B. Lippincott Co., distributed in Canada by Longmans, Green and Company Ltd., 20 Cranfield Road, Toronto 16.

Teacher's Reference for Human Geography

The World's Nation: Deasy, Griess, Miller, Case. Lippincott, distributed by Longmans, Green.

General Objectives of the Course

1. To teach in a systematic way the basic facts concerning the physical elements that affect the lives of humans;
2. To show the chief ways in which man uses his physical environment;
3. To present the distribution of population over the earth, and to discuss the cultural and economic factors affecting such distribution;
4. To explain the variety that exists in the physical and human environment; and
5. To give students a reasonable basis for interpreting and evaluating the changes which they observe taking place.

Course Content

PHYSICAL GEOGRAPHY

Unit 1—WEATHER AND CLIMATE (Suggested Time: eight weeks)

- (a) The Earth as a Planet
- (b) The Elements of Climate
- (c) Air Temperatures
- (d) Air Pressures
- (e) Humidity and Precipitation
- (f) Types of Climates: Their Causes; Effects
- (g) The Effect of Climate Upon Man

Unit 2—THE EARTH'S SURFACE (Suggested Time: eight weeks)

- (a) The Structure of the Earth
- (b) Fold Mountains: Their Origin and Destruction
- (c) Massifs and Plateaux
- (d) Alluvial Plains
- (e) The Work of the Sea
- (f) Glaciation
- (g) Erosion and Deposition by Wind
- (h) The Importance of Erosion to Man

HUMAN GEOGRAPHY

Introduction

In Human Geography it is our aim to examine those facets of geography which relate directly to *man* and his numerous activities. This process involves the observation of two things: the effects of these facets of geography upon *man*, and the results of *man's* activities upon his surroundings. These results and activities are so numerous that it is essential to limit our examination. Consequently, our study will consist of a consideration of the following aspects of Human Geography: cultural, economic, social and political.

Unit 3—MAN'S REACTION TO CLIMATE: The Cultural Aspect

- (a) The General Effect of Climate upon Population
- (b) Natural, Human, and Geographic Regions
- (c) World Population
- (d) Man in Humid Tropical Lands
- (e) Man in Temperate Humid Lands
- (f) Man in Dry Lands and in Cold Lands—The Zones of Privation

Unit 4—MAN AND THE PRODUCTION OF COMMODITIES:

The Economic Aspect

- (a) Primary Production
- (b) Secondary Production or Manufacturing
- (c) Transportation
- (d) Communication

Unit 5—SETTLEMENT OF MAN: The Social and Political Aspect

- (a) Rural Settlement
- (b) Urban Settlement

ECONOMICS 30

Authorized Text

Dodd: *Applied Economics* or

Trimble: *Understanding The Canadian Economy*

Content of Course as per Text

Understanding The Canadian Economy

1. Forms of economic organization
2. The business unit
3. Equilibrium of the individual firm
4. Supply and demand
5. Money and banking
6. International trade
7. National accounts and the business cycle
8. Income distribution
9. Personal finance
10. Public finance
11. Social services

Content of Course as per Text

Applied Economics

Unit 1—Nature of economics

Unit 2—Wealth and its production

Unit 3—The marketing of goods

Unit 5—Money and credit

Unit 6—Distributing income

Unit 7—Economic welfare

Unit 8—Government

SOCIOLOGY 20

The general objectives of sociology are:

1. Develop in students a sociological orientation.
2. Communicate a conception of the nature of society, how it operates, perpetuates itself and changes.
3. Create some understanding of the problems of our contemporary complex society; the processes which give rise to them and how they may best be resolved.

Text

Landis, P. H., *Sociology*, Ginn and Company, 1964.

Course Content

Unit I — The Science of Sociology.

- (a) What is sociology?
- (b) Relationship of sociology to other social sciences.
- (c) History of sociology.
- (d) Methods of sociological investigation.
- (e) Impact of sociology on contemporary society.

Unit II — Man and His Environments: Potentialities and Limitations.

- (a) Heredity and environment.
- (b) The geographical environment.
- (c) The cultural environment.
- (d) The social environment.
- (e) Kinds of groups.
- (f) Forms of interaction.

Unit III — Culture — The Man-Made World.

- (a) The cultural heritage.
- (b) The contemporary Canadian culture.
- (c) Cultural change.
- (d) Cultural lag.

Unit IV — Groups in Socialization.

- (a) The development of the social self.
- (b) The role of communication.
- (c) Small groups in socialization.
- (d) Secondary groups.
- (e) Human nature.

Unit V — The Structure of Society.

- (a) Stratification, power and influence.
- (b) Social mobility.
- (c) Canadian social class structure.
- (d) Subcultures.
- (e) Finding our place in an open-class society.

Unit VI — Governmental Structure and Economic Order.

- (a) The democratic process.
- (b) Government (Umpire and Servant).
- (c) International relationships.
- (d) Persistent problems in foreign affairs.
- (e) The economic system.
- (f) Labor management relations.
- (g) Quest for economic security.

Unit VII — Minority Groups in Societies.

- (a) Causes of prejudice and discrimination.
- (b) Consequences of prejudice and discrimination.
- (c) Minority group relationships in the world today.
- (d) Reduction of prejudice and discrimination.

Unit VIII — Marriage and the Family.

- (a) A brief history of the family.
- (b) Types and forms of the family.
- (c) Family formation.
- (d) Why love marriages.
- (e) Contrasting goals in marriage.
- (f) Canadian family structure.
- (g) Values in mate selection.
- (h) Family cycle.
- (i) The three stages of marriage.
- (j) Problem concepts of dating.
- (k) Dangers of steady dating.
- (l) Love and romantic complex.
- (m) Cycle leading to and ending in marriage.
- (n) Divorce.
- (o) Marriage analysis.

Unit IX — Crime, Punishment and Delinquency.

- (a) The law and crime.
- (b) Crime and punishment today.
- (c) Punishment and reformation.
- (d) Juvenile delinquency.
- (e) Juvenile courts vs. criminal courts.

Unit X — The Conservation of Human Resources.

- (a) Historical growth of the world's population.
- (b) Present growth.
- (c) Future growth.
- (d) Distribution of population and human ecology.
- (e) History of the Community.
- (f) Shift from country to city.
- (g) The modern city.
- (h) Theories of urban ecology.

- (i) New trends in urban ecology.
- (j) Rural problems.
- (k) Education.
- (l) Improving the health of the world.

Unit XI — Religion and Ethical Ideals.

- (a) Religion, a universal need of man.
- (b) Religious structure.
- (c) Religious roles.
- (d) Religious functions.
- (e) Religion and immortality.
- (f) Religious tolerance.
- (g) Religion and morality.
- (h) Religion and family life.
- (i) Organized religion today.
- (j) Denominationalism.

Unit XII — The Future of Man.

- (a) Social planning.
- (b) Causes of social problems.
- (c) Present and future social trends and problems.

PSYCHOLOGY 20

(Based on *Psychology For Living* by Sorenson and Malm)

The objective of this course is not primarily the mastery of a given body of subject matter. Rather, its purpose is to bring to the student's attention a scientific approach to the study of human behavior so that he may appreciate more fully the reasons that underlie his own acts and those of his fellows.

Compulsory Units

Unit 1—Personality

Unit 2—Mental and Emotional Health

Optional Units (Three out of five to be chosen)

Unit 3—Physical Growth and Behavior

Unit 4—Effective Learning

Unit 5—Intelligence and Thinking

Unit 6—Courtship and Marriage

Unit 7—Planning a Career

Text

Sorenson and Malm: *Psychology For Living*

Content

Introduction to the Course

- (a) A Definition of Psychology
- (b) A Brief History of Psychology
- (c) The Methods of Psychology
- (d) Other Fields of Study in Which There Is a Similarity Either of Name or of Subject Matter

COMPULSORY UNITS

Unit 1—Personality

Objective

The objective of this unit is to develop in the student an understanding of the concept of personality.

Content

- (a) Sources and Growth of Personality
- (b) Getting Along with Other People
- (c) Habits
- (d) Needs

Unit 2—Mental and Emotional Health

Objective

The objective of this unit is to develop in the student an understanding of the implications of mental and emotional health on human behavior.

Content

- (a) Emotion
- (b) Methods of Defence and Escape
- (c) Feelings, Concepts, and Attitudes
- (d) Anger and Fear

OPTIONAL UNITS

Unit 3—Physical Growth and Behavior

Objectives

The objective of this unit is to develop an understanding of the physical bases of behavior.

- (a) Structures for Objective Awareness and Response
- (b) Physical Growth
- (c) The Effect of Physical Development on Personality

Unit 5—Effective Learning (Chapters 15-18, Sorenson and Malm)

Objective

The objective of this unit is to develop an understanding of the learning process and the psychological principles underlying effective study habits.

- (a) Success in School and as an Adult
- (b) How to Study
- (c) How we Learn
- (d) Memory

Unit 5—Intelligence and Thinking (Chapters 19-21)

Objective

The objective of this unit is to develop in the student an understanding of the nature of intelligence and its relationship to thinking.

- (a) Definitions of Intelligence
- (b) The Distribution of Human Intelligence
- (c) Intelligence and Levels of Thought
- (d) Cultivation of Clear Thinking

Unit 6—Courtship and Marriage

Objective

The objective of this unit is to develop an understanding of the behavior factors which lead to wholesome and intelligent relations between the sexes.

Note: This unit should be offered only in schools where the administration has expressly authorized it.

- (a) Getting Along With Members of the Other Sex
- (b) What Makes One Attractive to the Opposite Sex
- (c) The Importance of a Wise Marital Choice
- (d) Making a Successful Marriage

Unit 7—Planning a Career

Objective

The objective of this unit is to develop in the student an understanding of the psychological approach to career selection.

- (a) Knowledge of Oneself
- (b) Knowing the Work
- (c) Putting (A) and (B) Together
- (d) Getting Along on the Job
- (e) Other Factors

PSYCHOLOGY 20

(Based on *Introductory Psychology* by Averill)

Reference Books

For the Student:

Averill: *Introductory Psychology*

For the Teacher:

Collins and Drever: *Psychology and Practical Life*
 Strecker and Appel: *Discovering Ourselves*
 Bowers: *Thinking for Yourself*

Content

1. Human Wants and How They are Satisfied
2. Our Habits
3. The Scientific Basis of Psychology
4. How to Study
5. Mental Attitudes
6. Paying Attention
7. How to Remember
8. Some Rules of Learning
9. Work, fatigue and interest
10. Our Feelings and Emotions
11. Thinking
12. Wish-Thinking and Propaganda
13. What we Do and Do Not Inherit
14. Meeting Obstacles
15. Your Vocation
16. Character and Character Building
17. Living Harmoniously
18. Personality
19. Crime and Delinquency
20. Developing a Healthy Mind

HOME ECONOMICS

HOME ECONOMICS 10

Value: 5, 4, or 3 credits for 5, 4, or 3 periods.

Objectives

1. Provision of knowledge for the student without previous experience in home economics who is unlikely to have the opportunity to take further courses in home economics beyond this one year.
2. Development of interest in home economics and establishment of an understanding of good management in all areas.
3. Development of adequate basic skills to provide sufficient background for more advanced homemaking.

Unit 1—Management

- A. Definition of Management.
 1. Management in all areas.
 2. Steps to good management.
- B. Time management.
- C. Energy management.
- D. Money management.

Unit 2—Managing Family Meals

- A. Management of meal work.
- B. Guides to good eating.
- C. Attractive meal service.
- D. Better breakfasts.
- E. Family luncheons.
- F. Family dinners.
- G. Entertaining.

Unit 3—Home Management

- A. A well kept home.
- B. The family wash.
- C. Cleaning the home.
- D. Electrical appliances.

Unit 4—Clothing Selection and Construction

Choice of Project: Suggested project is a shirtwaist dress made of firm fabric.

- A. Good grooming.
- B. Wardrobe planning and selection.
- C. Textile study.
- D. Construction of garment.

ELECTIVES — At least one to be studied.

1. A Girl's Room

- A. A well kept room.
- B. Privacy.
- C. Art principles applied to room furnishings.
- D. Arrangement for convenience and safety.

- E. Use of storage space.
- F. Room improvements.
- G. Window treatments.
- H. Making a room cheerful and attractive.

2. **Girl's Social Calendar of Activities**

- A. Entertaining for special days.
- B. Party themes.
- C. Other possibilities for entertaining.
- D. Three types of parties:
 - 1. Casual
 - 2. Informal
 - 3. Formal
- E. Party etiquette.

3. **Home Related Arts and Crafts**

Discuss principles of design and color and a number of crafts in preparation for planning and making one craft which expresses individuality.

4. **Childrens' Clothing**

- A. Suitable clothing for children.
- B. Pattern selection.
- C. Choice of fabrics.
- D. Construction of chosen garment.
- E. Evaluation.

5. **Remodelling Clothes**

- A. Satisfaction in remodelling.
- B. Requirements of make-over garment.
- C. Designing garment.
- D. Construction of garment.

References

Campion, Carson and Ramce — *Planning and Preparing Meals* — McGraw Hill Company.

Pollard — *Experiences in Homemaking* — Ginn and Company.

Pollard — *Experiences in Clothing* — Ginn and Company.

Raines, Margaret — *Managing Livingtime* — Prentice Hall of Canada.

HOME ECONOMICS 21

"Looking Ahead to Home Living"

Value: 5, 4, or 3 credits for 5, 4, or 3 periods.

Prerequisite: This course **does not** require a prerequisite.

Objective

This course is designed to prepare students for their future. Students are made to realize the responsibilities they will have in the future and how best to meet them.

Unit 1—Personal and Family Relations

- A. Understanding and development of self.

- B. Friendships.
- C. Achieving maturity.
- D. Accepting one's role as a community member.

Unit 2—Your Vocational Future

- A. Planning ahead.
- B. Getting and keeping a job.
- C. Growing up socially.
- D. Looking ahead to marriage.

Unit 3—Preparing and Serving Quicker Meals

- A. Food fundamentals for two or ten.
 - 1. Choice of foods:
 - (a) Canada's Food Guide.
 - (b) Nutrients.
 - (c) Calories.
 - (d) Food additives.
 - (e) Shopping for food.
- B. Planning meals for two.
 - 1. Simplifying work by using good management.
 - 2. Eating better for less.
- C. Entertaining.
- D. Aids to quick cooking.
- E. Preparing the unusual.

Unit 4—Clothing Selection, Construction and Care

Project

Each student will be required to complete one garment — basic dress or basic outfit for girls and sports shirt or pyjamas for boys. The choice of fabric and finishing details will depend upon the previous experience of the students.

- A. Clothing and social acceptance.
- B. Better buymanship.
- C. Clothing choice.
- D. Textile study.
- E. Garment construction.
- F. Clothing care.

Unit 5—Finding and Furnishing a Home

- A. Choosing a home.
- B. A good house plan.
- C. Color in the home.
- D. Furniture selection and arrangement.
- E. Fixed background of a room.
- F. Window treatment.
- G. Accessories for the home.
- H. Selection of tableware, linens and appliances.
- I. Care of the home.

Unit 6—The Baby and the Family

- A. Looking forward to having children.
- B. Prenatal care.
- C. Care of the baby.
- D. Development of baby.
- E. Development of desirable habits.
- F. Community responsibility for welfare of children.

Text

Craig, Hazel Thompson — *Thresholds to Adult Living* — Copp Clarke Company.

References

- Craig and Rush — *Homes with Character* — Copp Clarke Company.
- Department of National Welfare — *Canadian Mother and Child* — Department of Welfare, Ottawa.
- Judson and Mary Landis — *Personal Adjustment — Marriage and Family Living* — Prentice Hall of Canada Limited.
- Pollard — *Experiences in Foods* — Ginn and Company.
- Wilson — *Sew a Fine Seam* (revised edition) — McGraw Hill Company of Canada.

FABRICS AND DRESS 10

Value: 5 (4) credits; 5 (4) periods.

Division of Time: Practical, 4 periods; Theory 1 period.

Objectives

- 1. To develop good judgment in selection of style and fabric.
- 2. To realize selection and construction of garments expresses personality.
- 3. To realize care of one's clothing is a responsibility.
- 4. To learn to construct garments of varying difficulty.

Unit 1—Getting Ready to Sew

- A. Use and care of sewing machine.
- B. Selection and care of sewing equipment.
- C. Introductory practice project.

Unit 2—Good Grooming

Qualities:

- A. Poise.
- B. Good taste.
- C. Body care.
- D. Good appearance.

Unit 3—Construction Techniques

- Projects: (1) classic slim skirt.
(2) simple classic blouse or shirt.
(3) summer dress.

Alternate projects: (1) sports wear.

(2) sleep wear.

(3) duster or housecoat.

N.B. Limited to firmly woven cotton blend. Wool for skirt.

Minimum — three projects. Stress quality rather than quantity.

A. Selection of pattern:

Suitable for: (1) figure.

(2) age.

(3) occasion.

B. Selection of material:

Suitable for: (1) pattern.

(2) occasion.

(3) girl.

Consider performance and cost.

C. Pattern — selection and special features.

D. Personal measurements:

(1) correct size.

(2) correct figure type.

E. Preparation of material:

(1) stress grain perfection.

(2) truing the material by:

(a) tearing.

(b) pulling a thread and cutting.

F. Placing fabric.

(1) layout.

(2) cutting.

(3) marking.

G. Assembly and fitting:

— stress unit method.

H. Construction processes:

(1) seams and seam finishes.

(2) pressing.

(3) buttonholes.

(4) plackets and zippers.

(5) sleeves.

(6) collars and cuffs.

(7) finishing techniques, hooks and snaps, buttons, etc., carefully executed.

Unit 4—Fibers and Fabrics

A. Weaves — plain, twill, satin, sateen, pile, leno.

B. Dyeing — yarn, piece, printing.

C. Finishes — mechanical, chemical.

—Students should be familiar with common types of cotton fabrics and simple weaves.

—COTTON—used in dress: sources; characteristics; identification; uses; and care.

—WOOL—used in skirt; sources; uses; and care.

—SYNTHETICS—introduce briefly—arnel; terylene; nylon; orlon.

Unit 5—Shopping

Consider:

- A. Core (basic) wardrobe.
- B. Addition of co-ordinates to the core wardrobe.
- C. What to look for when we buy.
- D. Information given by a good label.
- E. What a consumer should know about a garment.

References

Erwin — *Clothing for Moderns* — Brett Macmillan Company
Carson — *How You Look and Dress* — McGraw Hill Company
Potter and Corbman — *Fiber to Fabric* — McGraw Hill Company
Wilson — *Sew a Fine Seam* (revised) — McGraw Hill Company

FABRICS AND DRESS 20

Value: 5 (4) credits; 5 (4) periods.

Prerequisite: Fabrics and Dress 10.

Division of Time: Practical — 4 periods; Theory — 1 period.

Objectives

1. Stress the principles of good management.
2. Make pupils aware of the many decisions to be made wisely in buying fabrics and ready-mades.
3. Encourage pupils to appreciate good design which includes function and beauty.

Unit 1—Core Wardrobe

- A. Definition.
- B. Clothing inventory.

Unit 2—Projects

- A. A fully lined WOOL basic dress.
- B. A slim basic wool skirt (a) drafted.
(b) remodelled.
- C. A dress or blouse of silk or a silk-like material.

Unit 3—Fibers and Fabrics

- A. Fibers (1) basic.
(2) staple.
- B. Weaves (1) basic.
(2) woven in.
(3) embroidered.
- C. Knitting — felting — braiding.
- D. Finishes.
- E. Study — Wool and hair fibers
— (source
— (countries
Silk — (uses
(manufacture
(care
(performance
- F. Types of Man-Made Fibers — according to generic names:
(1) Cellulosics — rayon.
— acetate.
— triacetate.

Unit 2—Textile Research

- a brief review of weaves and finishes.
- Continued study of the man-made fibers being used today, stressing their performance and care. Read and study available textile books, up-dated pamphlets, take field trips, etc.

Unit 3—Consumer Education

Consider:

- A. Careful planning.
- B. Thoughtful buying.
- C. Proper care of clothes.
- D. Personal influences.
- E. Personal finances.
- F. Inventory and hang-tag file.
- G. Buying points.
- H. Shopping plans.
- I. How to buy ready-mades.

References

Chambers and Moulton—*Clothing Selection*—Longmans Canada Limited
Sturm and Grieser—*Guide to Modern Clothing*—McGraw Hill Company
Wilson—*Sew a Fine Seam* (revised)—McGraw Hill Company
Wingate—*Know Your Merchandise*—McGraw Hill Company

FOODS AND NUTRITION 10

Value: 5 (4) credits; 5 (4) periods.

Division of Time: Practical — 4 periods; Theory — 1 period.

Objectives

The development of the ability to select and prepare an adequate family diet with due attention to nutrition, standard methods, cost, time available, correct service, and necessary home management for smooth running of the kitchen, dining room, and laundry.

Scope

Sequence

- | | |
|---------------------------------|---|
| A. Nutrition. | 1. Canada's Food Guide. |
| | 2. Source and function of food nutrients. |
| | 3. Criticism of popular meals from nutritional standpoint. |
| | 4. Correction of faulty nutrition applied to individual students. |
| B. Meal Planning. | 1. Planning and analysis of balanced meals. |
| | 2. Intelligent spending of the food dollar — consumer buying. |
| | 3. How to be an intelligent buyer by: reading labels, knowing grades, studying advertising. |
| C. Table Setting and Etiquette. | 1. Choose table appointments — to harmonize with the room and furniture. |

Scope	Sequence
	<ol style="list-style-type: none"> 2. Study table appointments — linen, cutlery and silver, china, glass and crystal, table centers. 3. Table setting, service and etiquette. 4. Develop poise and ease through actual practice and practical application.
D. Laundry	<ol style="list-style-type: none"> 1. Launder towels, aprons and table linen used in the cookery laboratory. 2. Learn about soaps, synthetic detergents, hardness of water, water softeners, blueing, etc. 3. Remove simple stains found on school linen.
E. Planning and Preparing Snacks and Simple Teas.	<ol style="list-style-type: none"> 1. How to be a good manager, plan menus, use tested recipes, make market lists, and time schedules. 2. How to work efficiently—correct use of equipment and measurements. 3. How to be an efficient housekeeper — kitchen arrangement, dishwashing, care of equipment, sanitation in kitchen, safety. 4. Grooming, personal cleanliness. Suitable dress for all occasions. 5. Learn to make sandwiches, dips, garnishes, beverages, simple cookies.
F. Planning, Preparing and Serving Breakfasts.	<ol style="list-style-type: none"> 1. Planning simple family breakfast. 2. Food theory developed for each topic: <ol style="list-style-type: none"> (a) Value in diet. (b) Classification and characteristics. (c) Standard methods of preparation. (d) Source of product. (e) Where to use. (f) How to serve. (a) Comparison with perfect product for evaluation. 3. Foods in breakfast pattern: <ol style="list-style-type: none"> (a) Fruits (fresh, cooked, frozen, and dried). (b) Cereals—new ways of serving. (c) Quick breads—muffins, griddlecakes, waffles, tea biscuits. Syrup for griddlecakes. (d) Eggs — poached, scrambled, baked, shirred, omelets, etc. (e) Bacon, ham, sausage. (f) Beverages — milk, coffee, cocoa.
G. Foods in the Luncheon Pattern.	<ol style="list-style-type: none"> 1. Plan and serve simple family luncheons. 2. Follow outline suggested in F(2). 3. Foods in the luncheon pattern: <ol style="list-style-type: none"> (a) Cream soups, chowders, white sauce. (b) Cheese. (c) Casseroles. (d) Meats — inexpensive meats — stews — pot roasted — braised — pressure cooked.

Scope

Sequence

- (e) Vegetables — boil, bake, saute, scallop and pressure cook a variety of vegetables.
- (f) Salads and salad dressings.
- (g) Desserts —
 - 1. fruit, milk, custards, simple gelatin.
 - 2. dessert sauces.
 - 3. butter cakes and icings.
 - 4. pastry — double crust pies, single crust pies, tarts.
- H. Foods for Special Occasions.
 - 1. Candy — fudge.
 - 2. Cookies — bar, drop, refrigerator, rolled, moulded, etc.
 - 3. Fruit loaves
- I. Vocational Possibilities in Food Service.
 - 1. Consider the vocational training offered which will help in finding employment in the food services at:
 - (a) Composite high school.
 - (b) Vocational high school.
 - (c) Home economics department in a university.
 - (d) Provincial school of technology.

Texts

- L. Belle Pollard (Canadian edition) — *Experiences With Foods* — Ginn and Company
OR
Campion, Carson, and Ramee (Canadian edition) — *Planning and Preparing Meals* — McGraw Hill Company

FOODS AND NUTRITION 20

Value: 5 (4) credits; 5 (4) periods.

Prerequisite: Foods and Nutrition 10.

Objectives

- 1. To develop a desire to assume greater responsibility for the planning and serving of attractive meals in the home in varying circumstances and to plan and prepare nutritious dinners.
- 2. To develop skill in cookery.
- 8. To develop the ability to entertain simply yet graciously. Practical work accompanied by theory and evaluation.

Scope

Sequence

- A. Nutrition.
 - 1. Review food theory. Study deficiency diseases due to the lack of an essential nutrient.
 - 2. Consider individual food needs of children under-and over-weight and convalescent.
 - 3. Digestion and absorption.
- B. Meal Management.
 - 1. Review meal patterns for breakfast, luncheon and dinner; table setting and etiquette.

Scope**Sequence**

- | | |
|--|---|
| | 2. Meal management includes, time and money management, housekeeping, market orders, time schedules, evaluation. |
| C. Money Management in Meal Planning. | 1. The food dollar.
2. Budgets and accounts. |
| D. Kitchen Management. | 1. Floor plan of well arranged kitchen.
2. Principles of arrangement of supplies and equipment.
3. Selection of kitchen equipment. (Large and small.)
4. Care of equipment. |
| E. Laundry. | 1. Review Foods and Nutrition 10—school laundry. |
| F. Preservation of Food. | 1. Causes and ways to prevent food spoilage.
2. Preservation of foods — all types including freezing. |
| G. Cookery Based on Dinner Preparation — advanced cookery — include what has not been covered in Foods and Nutrition 10. | 1. Appetizers — stock soup, canapes, cocktails.
2. Yeast breads and rolls.
3. Salads — mayonnaise and French dressing.
4. Proteins — more expensive cuts of beef, pork, liver, chicken, fish.
5. Vegetables — new varieties with sauces.
6. Deep fat frying.
7. Cakes — all types.
8. Pastry — new types.
9. Desserts — gelatin, ice cream, sherbets, simple and elaborate desserts.
10. Special occasion food — Christmas and Easter cookery — candy. |
| H. Vocational Opportunities in the Food Services. | 1. Review outline in Foods and Nutrition 10.
2. Specialized fields, catering, food technician, dietitian, etc. |

Text

- L. Belle Pollard (Canadian edition) — *Experiences With Foods* — Ginn and Company
OR
Campion, Carson, and Ramee (Canadian edition) — *Planning and Preparing Meals* — McGraw Hill Company.

FOODS AND NUTRITION 30

Value: 5 (4) credits; 5 (4) periods.

Prerequisite: Foods and Nutrition 10 and 20.

Objective

To give a thorough working foundation as a basis for homemaking or for a career.

Scope

Sequence

- | | |
|--|---|
| A. Preservation of Food. | 1. Review theory — choose to do two new problems. |
| B. Planning and Serving Meals. | 1. Review informal service. Serve one formal meal.
2. Suggested meals; low cost, quick meals, freezer meals, outdoor meals, oven meals, the career girl entertains. |
| C. Nutrition. | 1. Review nutritional requirements for a normal diet.
2. Study nutritional requirements in abnormal conditions which require special diets.
3. The invalid tray. |
| D. Large Quantity Cookery. | 1. Study with reference to school and community functions.
2. Practical application — school party refreshments, cafeteria, graduation.
3. Take field trips to hospitals, etc. |
| E. Management of Resources. | 1. Your role as a consumer.
2. Planned spending — budgets and accounts.
3. Credit buying. |
| F. The Kitchen. | 1. Planning a kitchen, cabinets, finishes, floors, etc.
2. Choosing and buying large equipment. |
| G. Demonstrations. | 1. Teacher demonstrates to establish principles.
2. Students do at least one demonstration. |
| H. Regional or National Dishes. | 1. Demonstration and practical cookery.
2. Use of seasonings — herbs, spices. |
| I. Cookery projects and Research.
—discuss value and purpose.
—choose areas of study.
—group or individual study.
—evaluate results. | 1. Suggested projects.
(a) Appetizers.
(b) Vegetables
(c) Meat.
(d) Casseroles.
(e) Salads.
(f) Quick breads.
(g) Pastry.
(h) Yeast breads.
(i) Cakes.
(j) Cookies
(k) Fancy desserts.
(l) Mixes. |
| J. Vocational Opportunities. | 1. Do a thorough study of vocational opportunities.
2. Analyzing jobs — applying for a job. |

Text

Helen Wattie and Elcanor Donaldson — *The Nellie Pattinson's Canadian Cook Book* — (1961) Ryerson Press.

INDUSTRIAL ARTS

Note: The Revised Industrial Arts program which was interim in 1965 is now the accepted course. In the transition period the following may still be offered:

Woodwork 10, 20, 21A

Electricity 10, 21, 21A

Metalwork 10, 21, 21A

Printing 10, 20

Automotives 10, 21, 21A

Arts and Crafts 10, 20 and 30 will continue as 5 or 10 credit courses

Drafting 10, 20, 30 to be continued indefinitely

Objectives of Industrial Arts

1. To develop an understanding of related technological clusters and the interrelationship of technologies within the cluster areas.
2. To develop an understanding of the applications of the academic disciplines in an industrial environment.
3. To present an environment which stimulates the individual to discover and develop his interests and talents.
4. To develop an understanding of man's changing role in an advancing industrialized society. (The changing concept of work).

Two programs in Industrial Arts are being developed for the senior high school. Program I consists of four cluster courses: Electronics, Materials, Graphic Communications and Power Mechanics. Program II is a three year General Industrial Arts program with four units selected each year from a total of twenty-one. Both are designed to increase the student's knowledge and experiences in the technologies and crafts. The following courses are of four-five credit value.

PROGRAM I

INDUSTRIAL ARTS MATERIALS 10, 20, 30

The course consists of four units each year in Wood, Metals, Plastics and one craft material chosen from ceramics, leather, lapidary, textiles. Each unit is developed under the following headings:

1. Layout and Design
2. Sources and Applications
3. Hand Processes
5. Fasteners
6. Finishing
7. Occupational Information

MATERIALS 10

A. Wood

- Layout
- Identification and use, testing
- Hand tools and processes - planing, chiseling, boring, sawing
- Machine processes - surfacing, turning, sawing
- Fastening - nails, screws, glue
- Finishing - sealer, filler, oil, varnish, wax
- Occupational Information

B. Metal

- Layout in metal - tape, ink
- Identification and source - manufacture of steel, testing
- Hand processes - shaping, sawing, filing, drilling
- Machine processes - grinding, drilling
- Fastening - rivetting - soldering, screws and bolts
- Finishing - paint
- Occupational Information

C. Plastics

- Design in acrylics, butyrates, vinyls
- Cutting, filing, machining processes
- Heat Forming
- Fastening with cements, solvents, mechanical means
- Finishing processes - coloring, buffing, polishing
- Industrial uses and occupational opportunities

D. Craft Materials

—Only one of the following crafts may be selected each year of the program:

1. Leather

- Selection, uses and design
- Leather industries of Alberta
- Processes - cutting, carving, creasing, lacing
- Fasteners - sewing, rivetting, glues, snaps
- Finishing methods

2. Ceramics

- Source and testing of materials
- Industrial Applications
- Shaping and forming ceramics products - slab, coil, wheel, slip, molding
- Firing
- Finishing - glazes
- Occupational information

3. Lapidary

- Identification and sources of materials
- Processes of cutting, grinding, lapping, tumbling, faceting, polishing
- Use of fasteners

4. Art Metal

- Design principles
- Materials
- Processes - cutting, filing, soldering, drilling, annealing, pickling, forming, twisting, beating, spinning
- Finishing - planishing, filing, chasing, stamping, stippling, embossing

MATERIALS 20

A. Wood

- Blueprint reading, planning procedure and bills of materials
- Imported woods - use and characteristics
- Tool processes - dados, grooves, chamfers, rabbets, turning, routing
- Bending, laminating, veneering and testing wood materials
- Fastening - joints, glues and adhesives
- Finishing - lacquers, varnish, Swedish oil, polishing
- Wood industries and occupational opportunities

B. METAL

- Metal symbols
- Metallurgy - hardening, heat treatment, annealing, tempering
- Machine Processes - turning, shaping
- Finishing with - spray, industrial methods
- Occupational opportunities

C. Plastics

- Design and symbols
- Processes - heat forming, laminating, blow forming, vacuum forming
- Tests and experiments in strengths and shaping of plastics.

D. One craft other than that chosen in Materials 10.

MATERIALS 30

A. Wood

- Read architectural drawings
- Organizing of companies (construction)
- Selection of building sites
- Material selection and testing
- Construction planning
- Basic design of frame building
- Construction processes - concrete form design, framing, walls and rafters, roofing, finish carpentry
- Tool Processes - sawing, nailing, conditioning tools
- Occupational information

B. Metal

- Design for mass production
- Material testing - brittleness, ductility, toughness, malleability, shear torsion
- Processes - case hardening, work hardening
- Production processes - copper, bauxite, alloys, aluminum
- Machine processes - turning, knurling, filing, polishing, tapering, milling a flat surface

C. Plastics

- Resins, fiberglass
- Material processes - embedding, overlay, laminating, molding, fiberglass repair
- Machine processes - carving, rotational molding, slush mold, injection, extrusion, compression molding, transfer molding
- Finishing methods
- Industrial application

D. Craft other than taken in 10 or 20.

POWER MECHANICS 10

1. Power Sources
 - (a) Measuring of work, energy power
 - Measurement of power
 - Calculating efficiency
 - (b) 4 cycle internal combustion engine
 - Principles of operation
 - Carburetion and exhausting
 - Ignition system
 - Cooling system
 - Lubrication system
2. Power Sources
 - (a) Two-cycle internal combustion engine
 - Principles of operation
 - Control and analysis
 - Application
3. Power Transmission—Hydraulics
 - Basic principles
 - Pascal's law
 - Hydraulic devices
 - Hydraulic circuitry
4. Power Transmission—Mechanical
 - Need for power transmission
 - Mechanical advantage
 - Directional changes
 - Efficiency
 - Concept of torque
 - Transmission of power by
 - belts
 - chain devices
 - gears
 - shafts, rods, cams, axles
 - air and water screws
 - Clutch systems

POWER MECHANICS 20

1. Power Sources—Internal Combustion Engine
 - Four-cycle internal combustion engine
 - A more detailed study of the units comprising a system will be undertaken
2. Power Sources—Electric Motors
 - Basic electric principles
 - Induction
 - Resistance
 - Capacitance
 - Testing for torque, efficiency
 - Motor design
 - Generator principles and design
3. Power Transmission—Hydraulic
 - Bernoulli's theorem
 - Types of valves
 - Sealing devices
 - Accumulators
 - Hydraulic motors
 - Hydraulic pumps
 - Methods of flow control
4. Power Transmission—Electrical
 - Interrelationship between mechanical and electrical power
 - Transformers
 - Power loss in line
 - Concepts of phase-single and three
 - Operation of control devices
 - thermostats
 - humidistats
 - barostats
 - hydrostats
 - thermocouples
 - Concepts of remote controls sensitive to voltage and amperage

POWER MECHANICS 30

1. Power Sources—Internal Combustion Engine
 - Four-cycle internal combustion engine
 - A review of the systems, units within the system and now a more detailed study of the components
 - Diesel engines

2. Power Sources—Turbine, Rotary Combustion, Solid Fuel

- Operating principles of the various engines
- Control and analysis procedures
- Application

3. Power Transmission—Hydraulics

- Review of principles studied previously
- Valves
 - pressure reducing
 - directional
 - four way
 - servo
 - rotary
 - metering
 - needle
- Occupational opportunities

4. Power Transmission—Pneumatics

- Historical development
- Gas Laws
 - Pascal's
 - Charles'
 - Boyle's
 - Dalton's
 - Avogadio's
 - Bernoulli's Principle
- Pumps and compressors
- Valves
- Circuitry

INDUSTRIAL ARTS GRAPHIC COMMUNICATIONS 10, 20, 30

GRAPHIC COMMUNICATIONS 10 (INTERIM)

1. Drafting

- Orthographic projection
- Isometric projection
- Pictorial drawing
- Sectional drawing
- Freehand drawing
- Machine drawing
- Electrical drawing
- Blueprinting
- Sheetmetal drawing
- Blueprint reading

2. Photography
 - Composition; principles
 - Materials; films, paper
 - Mechanical Processes; cameras
 - Material Processes; contact printing, enlarging
 - Career opportunities
3. Printing and Reproducing Processes
 - Composition and Design; type families—principles of design
 - Materials; papers, history, ink
 - Mechanical Processes; typesetting, platen press, sign press
4. Printing (continued)
 - Mechanical Processes; kinds of printing—letterpress, intaglio, lithographic, offset, flatbed press, cylinder press, rotary press
 - Material processes; preparation of stencils, direct image masters, transfer image masters, dry copiers, wet copiers

GRAPHIC COMMUNICATIONS 20

1. Drafting
 - Orthographic Projection
 - Isometric Projection
 - Pictorial Drawing
 - Sheetmetal Drawing
 - Sectional Drawing
 - Auxiliary View
 - Architectural Drawing
 - Machine Drawing
 - Tracing and Printing
2. Photography
 - Review of principles studied first year
 - Composition; landscape, portraits, still life
 - Materials—types of film
 - Processes—Mechanical and Material; properties of light, lenses, f-stop, special cameras, enlarging, filters, using camera
3. & 4. Printing and Reproducing Processes
 - Composition and design; art work for lithography, line drawings, full and half tones
 - Material processes; photographic masters, transparencies, silk screening

GRAPHIC COMMUNICATIONS 30

1. Drafting
 - Architectural Drawing
 - Machine Drawing
 - Topographical
 - Pictorial
 - Sheet Metal
 - Automotive Drawing
 - Tracing and Printing
2. Photography
 - Modern applications; Commercial, Roentgenography, Infra Red
 - Darkroom techniques
 - Photography as related to the offset press
 - Print finishing
 - Color photography
 - Motion picture photography
3. Printing and Reproduction Methods
 - Practical application of offset—the duplicating cycle
 - The offset press—review, color printing
 - Comparison of duplicating processes—economy, speed, ease of operation
4. Bindery
 - Jog and glue
 - Folding
 - Binding

INDUSTRIAL ARTS ELECTRONICS 10, 20, 30 (INTERIM

ELECTRONICS 10

1. (a) Safety
- (b) Instrument use
 - V.O.M.
 - V.T.V.M.
 - Oscilloscope
 - Signal generator
- (c) Study of electronic systems (Minimum of two)
 - Record player
 - T.R.F.
 - Superhet
 - Computer
2. (a) Study of electronic systems (minimum of three, do not repeat those studied in Unit 1)
 - Record player
 - T.R.F.
 - Superhet
 - Computer
 - Transmitter
 - Transistor
 - Video

2. (a) —F.M.
—Electronic controls
- (b) Basic principles of operation of as found in system studied
—Power Supply
—Amplifier
—Oscillator
3. Variations of the units
 - (a) Power supplies—half wave and full wave
 - (b) Amplifiers—audio frequency—voltage and power
—radio frequency
 - (c) Oscillator—Armstrong, Hartley
4. Components—identify, measure values, construction
 - (a) Resistors
 - (b) Capacitors
 - (c) Inductors
 - (d) Transformer
 - (e) Tubes
 - (f) Transistors

ELECTRONICS 20

1. (a) Review of instrument use
- (b) Review of systems studied in Electronics 10 and study two additional systems
2. Study in depth
 - (a) Power supplies
 - (b) Amplifiers
 - (c) Oscillators
3. Physical and mathematical principles of components
 - (a) Resistors, capacitors, inductors, transformers, tubes, transistors
 - (b) Ohm's Law as it applies to A.C. and D.C. circuits
 - (c) Capacitors in A.C. and D.C. circuits
 - (d) Inductance in A.C. and D.C. circuits

ELECTRONICS 30

1. (a) Analyse computer system to determine input and output
- (b) Function of units
2. Telemetering and remote control
3. Student research and development of special interest area
 - F.M.
 - Video
 - Computer
 - Industrial control

PROGRAM II

INDUSTRIAL ARTS, GENERAL 10, 20, 30

Industrial Arts General is a series of three courses with each year's work of four units selected from a possible twenty-one. These units may be chosen one from each cluster or no more than two from a single cluster and the other two from two different clusters. There should be no repetition of units over the three years.

Following are the clusters and units in each:

A. Electronics

1. (a) Safety
- (b) Instrument use
 - V.O.M.
 - V.T.V.M.
 - Oscilloscope
 - Signal generator
- (c) Study of electronic systems (minimum of two)
 - Record player
 - T.R.F.
 - Superhet
 - Computer
2. (a) Study of electronic systems (minimum of three, do not repeat those studied in Unit 1)
 - Record player
 - T.R.F.
 - Superhet
 - Computer
 - Transmitter
 - Transistor
 - Video
 - F.M.
 - Electronic controls
- (b) Basic principles of operation as found in system studied
 - Power supply
 - Amplifier
 - Oscillator
3. Variations of the unit:
 - (a) Power supplies—half wave and full wave
 - (b) —audio frequency—voltage and power
 - (b) Amplifiers—audio frequency—voltage and power
 - radio frequency
 - (c) Oscillator—Armstrong, Hartley

4. Components—identify, measure valves, construction
 - (a) Resistors
 - (b) Capacitors
 - (c) Inductors
 - (d) Transformer
 - (e) Tubes
 - (f) Transistors

B. Materials

5. Wood
 - Layout
 - Identification and use, testing
 - Hand tools and processes—planing, chiseling, boring, sawing
 - Machine processes—surfacing, turning, sawing
 - Fastening—nails, screws, glue
 - Finishing—sealer, filler, oil, varnish, wax
 - Occupational Information
6. Metal
 - Layout in metal—tape, ink
 - Identification and source—manufacture of steel, testing
 - Hand processes—shaping, sawing, filing, drilling
 - Machine Processes—grinding, drilling
 - Fastening—rivetting—soldering, screws and bolts
 - Finishing—paint
 - Occupational Information
7. Plastics
 - Design in acrylics, butyrates, vinyls
 - Cutting, filing, machining processes
 - Heat Forming
 - Fastening with cements, solvents, mechanical means
 - Finishing processes—coloring, buffing, polishing
 - Industrial uses and occupational opportunities
8. Craft Materials
 - Only one of the following crafts may be selected each year of the program:
 - (a) Leather
 - Selection, uses and design
 - Leather industries of Alberta
 - Processes—cutting, carving, creasing, lacing
 - Fasteners—sewing, rivetting, glues, snaps
 - Finishing methods

- (b) Ceramics
 - Source and testing of materials
 - Industrial Applications
 - Shaping and forming ceramics products—slab, coil, wheel, slip, molding
 - Firing
 - Finishing—glazes
 - Occupational information
- (c) Lapidary
 - Identification and sources of materials
 - Processes of cutting, grinding, lapping, tumbling, faceting, polishing
 - Use of fasteners
- (d) Art Metal
 - Design principles
 - Materials
 - Processes—cutting, filing, soldering, drilling, annealing, pickling, forming, twisting, beating, spinning
 - Finishing—planishing, fleeting, chasing, stamping, stipling, embossing

C. Graphic Communications

- 9. Drafting
 - Geometric construction
 - Orthographic projection
 - Isometric projection
 - Pictorial drawing
 - Sectional drawing
 - Freehand drawing
 - Machine drawing
 - Electrical drawing
 - Blueprinting
 - Sheetmetal drawing
 - Blueprint reading
- 10. Printing Processes
 - Typesetting
 - Design and paste up
 - Platen press
 - Sign press
- 11. Photography
 - Cameras, types principles of operation
 - Contact printing
 - Enlarging
 - Film developing
 - Design in taking a picture
- 12. Duplicating
 - Types of duplicators
 - Principles involved
 - Stencil preparation
 - Production of transparencies

- Photocopiers
- Silk Screening
- Related trades

D. Power Mechanics

13. Power Sources

- (a) —Measuring of work, energy power
 - Measurement of power
 - Calculating efficiency
- (b) 4 cycle internal combustion engine
 - Principles of operation
 - Carburetion and exhausting
 - Ignition system
 - Cooling system
 - Lubrication system

14. Power Sources

- (a) Two-cycle internal combustion engine
 - Principles of operation
 - Control and analysis
 - Application

15. Power Transmission—Hydraulics

- Basic principles
- Pascal's Law
- Hydraulic devices
- Hydraulic circuitry

16. Power Transmission—Mechanical

- Need for power transmission
- Mechanical advantage
- Directional changes
- Efficiency
- Concept of torque
- Transmission of power by
 - belts
 - chain devices
 - gears
 - shafts, couplings, etc.
 - air and water screws
- Clutch systems

E. Special Units

17. Research

- Procedures
- Design
- Evaluation

18. Production Science

- Plant organization
- Staff organization
- Product design
- Standardization
- Effects of automation and cybernation on workers
- Labor problems
- Labor laws

19. Hot Metals

- Welding
- Safety
- Procedures
- Testing materials

20. Building Construction

- Architectural symbols
- Importance of planning
- Framing methods
- Materials—grades
- Conditioning of tools
- Methods of trussing
- Occupational information

21. Food Science

- Sanitation
- Preparation and use of fruits, milk, vegetables,
eggs
- Food preservation

DRAFTING

Objectives

1. Provide exploratory experiences.
2. Develop basic skills.

DRAFTING 10

1. Reading working drawings and blueprints.
2. Use of drafting equipment.
3. Geometric constructions.
4. Working drawings — kinds.

DRAFTING 20

1. General review.
2. Geometric construction.
3. Orthographic plate involving circles or arcs of circles.
4. Isometric plate involving circles or arcs of circles.
5. Surface development.
6. Cabinet drawing.
7. One-point perspective drawing.
8. Two-point perspective drawing.
9. Architectural drafting.
10. Aircraft drafting.

DRAFTING 30

1. Lettering.
2. Geometrical Constructions.
3. Machine Drawing.
4. Map Drawing.
5. Pictorial Drawing.
6. Structural Drafting.
7. Problems Involving Auxiliary Views.
8. Intersections and Development Problems.
9. Minimalics.

ARTS AND CRAFTS

1. The encouragement of originality within the bounds of good taste.
2. The development of a sense of good design and craftsmanship.
3. An appreciation for fine things.
4. The development of skills of hand and eye.
5. An introduction to the study of the heritage of the arts of the past.
6. The development of good citizenship through discipline with regard to materials, care of tools, regard for fellow workers, etc.

ARTS AND CRAFTS 10

An exploratory course in which as many crafts as possible are touched upon.

ARTS AND CRAFTS 20 AND 30

These courses constitute a more detailed study of a *few* crafts.

Course content for all three Arts and Crafts courses are selected from among the following:

1. Drawing and Painting
2. Design
3. Lettering
4. Commercial Art
5. Figure Drawing
6. Leathercraft
7. Pottery
8. Modelling, Casting and Carving
9. Art Metal
10. Interior Decoration
11. Stage Art
12. Textile Printing and Dyeing
13. Silk Screen Process
14. Bookbinding
15. Weaving
16. Dress Design and Fashion Drawing
17. Art Woodwork
18. Plastics
19. Industrial Design
20. Picture Matting and Framing
21. Salvage Craft
22. Toy Craft

VOCATIONAL COURSES

ELECTRICITY 12, 22, 32

Objectives

1. To impart to the student a knowledge of the role that electricity and electronics play in industry.
2. To equip the student with sufficient skill and knowledge that he will be highly employable in the electrical field.
3. To provide the student with sufficient background such that on entering the apprenticeship program he will advance at an accelerated rate.
4. To prepare a student to a degree of competency acceptable to the Institute of Technology sufficient for entry into the second year of the Industrial Electrical Technology program.

ELECTRICITY 12 (5 credits)

Objectives

1. To provide exploratory experiences in the field of electricity and electronics.
2. To provide opportunities for employment in the electrical and electronics field.
3. To provide a background for Electricity 22 and Electronics 22.

Course Content

1. Opportunities in Electricity and Electronics
2. Basic Concepts of Electricity
3. Sources of E.M.F.
4. Basic D.C. Circuits
5. Magnetism and Electromagnetism
6. D.C. Measuring Instruments

ELECTRICITY 22 (15 credits)

1. Review
2. Electromagnetic Induction
3. D.C. Generators
4. D.C. Motors and Control
5. A.C. and Single Phase Circuits
6. Laboratory Experiments

ELECTRICITY 32 (15 or 20 credits)

1. A.C. and Single Phase Circuits
2. A.C. Measuring Instruments
3. A.C. Generators
4. A.C. Motors and Controls

5. Transformers
6. Electronics
7. Lighting
8. Shop Activities and Related Theory
9. Laboratory Experiments

Texts

Electricity 12

Laboratory Manual—Basic Electricity: Zbar and Schildkraut
Electrical Fundamentals (D.C.) TM 11 - 661

Electricity 22

Basic Electricity: D.C. Fundamentals: Loper
Laboratory Manual—Basic Electricity: Zbar and Schildkraut
Canadian Electrical Code, Part I

Electricity 32

Basic Electricity II: Alternating Current Fundamentals, Duff
Laboratory Manual—A.C. Fundamentals: Duff
Laboratory Manual—Basic Electronics: Zbar and Schildkraut

PIPE TRADES 12, 22, 32

Objectives

1. To equip a student with sufficient skill that he will be highly employable in pipe trades.
2. To enable the student upon entering an apprenticeship to advance at an accelerated rate.
3. To assist the student in the development of desirable work habits, a sense of responsibility and ability to cooperate with associates.
4. To assist in development of an attitude of safety.
5. To acquaint the student with the wide field of the pipe trades and opportunities for employment and advancement.

PIPE TRADES 12 (5 credits)

Course Content

1. Opportunities in the Pipe Trades
 - (a) Plumbing
 - (b) Steam Fitting
 - (c) Gas Fitting
 - (d) Welding
 - (e) Refrigeration
 - (f) Sprinkler Controls
 - (g) The Apprenticeship Program
2. Orientation
 - (a) Tools—Use and Care
 - (b) Basic Pipe Threading
 - (c) Bell and Spigot Pipe
 - (d) Fittings and Tools
 - (e) Copper Pipe and Fittings
 - (f) Hangers and Supports

- (g) Pipe Grading
- (h) Pipe Bending and Offsets
- (i) Temperature Pressure; Measurements and Effects
- (j) Heat Transfer
- (k) Heating
- (l) Plumbing

PIPE TRADES 22

1. Gas Welding and Cutting
2. Oxy-acetylene Torch
3. Safety
4. Gas Welding
5. Brazing and Welding
6. Silver Solder
7. Electric and Arc Welding
8. Weld Defects
9. Blueprint Reading
10. Plumbing
11. Plan Reading
12. Mathematics
13. Service Work
14. Flushometers
15. Water Closets
16. Faucets and Valves
17. Water Supply
18. Water Meters
19. Plan Reading
20. Water Softeners
21. Domestic Hot Water Heaters and Systems
22. Plumbing Code and Plan Reading
23. Principles of Drainage
24. Venting
25. Water Supply
26. Plumbing Fixtures
27. Sewage Disposal
28. Service Work
29. Domestic Hot Water and Water Softeners
30. Plastics

PIPE TRADES 32 (15 or 20 Credits)

1. Heating
2. Steam Generating Units and Plan Reading
3. Boiler Code
4. Steam Heating System and Plan Reading
5. Rigging
6. Heating Equipment and Plan Reading
7. Steam Traps
8. Expansion Allowance
9. Insulation
10. Maintenance of a Heating System—Components and Plan Reading
11. Flow Control and Balancing of H.W. System
12. High Pressure Systems
13. Principles of Heat Loss
14. Traps
15. Heating Systems

16. Low Pressure Steam Systems
17. Condensate
18. Principles of the Centrifugal Pump
19. Designing a Domestic Heating System
20. Pipe Failures
21. Instrumentation
22. Control Valves
23. Boiler Controls
24. Review of Silver Soldering
25. Gasfitting
26. Combustion
27. Burners
28. Venting Gas Appliances
29. Gas Approval Board
30. Alberta Gas Code
31. Installation of Gas Lines
32. Plan Reading
33. Controls
34. Field Trip to Industrial Plants

Texts

Pipe Trades 12

Plumbing Trade Information Sheets.

Pipe Trades 22

Plumbing Trade Information Sheets.

Plumbing and Drainage Regulations (Alta. Dept. of Health)

Pipe Trades 32

Steam and Hot Water Information Sheets

C.S.A. Standard B149

Pipefitters and Welders Handbook

SHEET METAL 12, 22, 32

General Objectives

1. To impart a knowledge of the role of the sheet metal worker in industry.
2. To equip the student with skill and knowledge such that he will be highly employable in the sheet metal trade.
3. To enable the student when he becomes a sheet metal apprentice to advance at an accelerated rate.

Specific Objectives

1. To enable the students to use the tools and machines of the trade efficiently, accurately and safely.
2. To develop habits which will result in good use of time and materials, good working relationships and safety.
3. To develop high standards of workmanship.
4. To familiarize students with the principles and practices involved in accurate measuring and working to close tolerances.
5. To develop the skills and knowledge required to both produce and interpret blueprints accurately.

SHEET METAL 12 (5 credits)

Course Content

1. Introduction
2. Shop Safety
3. Common Sheet Metals
4. Hand Tools and Stakes
5. Soldering
6. Stationary Floor Machines
7. Bench and Rotary Machines
8. Layout and Fabrication of Sheet Metal Projects

SHEET METAL 22 (15 credits)

Course Content

1. Shop Procedure and Safety
2. Common Sheet Metals
3. Hand Tools and Stakes
4. Soldering
5. Stationary Floor Machines
6. Bench and Rotary Machines
7. Layout and Fabrication of Sheet Metal Projects
8. Introduction to Principles of Air Movement as in a Gravity Furnace

SHEET METAL 32 (15 or 20 credits)

1. Shop Procedure and Safety
2. Industrial and Labour Relations
3. Layout and Pattern Development
4. Air Movement in Forced Air Systems

Texts

Sheet Metal 12

Sheet Metal Practice, Part 1: Neundorf and Stevens

Sheet Metal 22 and 32

Hand Processes, Sheet Metal Series

Machine Processes, Sheet Metal Series

GRAPHIC ARTS 12, 22, 32

Objectives

1. To develop skills and techniques basic to the graphic arts industry.
2. To provide students with related and technical information essential to develop proper work habits and attitudes.
3. To develop an appreciation of fine craftsmanship.
4. To prepare the student for self-supporting citizenship.
5. To develop safety consciousness in work habits.

GRAPHIC ARTS 12 (5 credits)

Content

1. Role of Graphic Arts in Industry
2. The California Job Case
3. Space Materials
4. The Anatomy of Type
5. Hand Composition and Distribution
6. Tying Up a Type Form
7. Operation of the Proof Press
8. The Printer's System of Measurement
9. Characters Difficult to Recognize
10. Proofreading
11. Hyphenation
12. Straight Matter Composition
13. Cutting and Mitering
14. Development of the Alphabet
15. Basic Type Face Sizes
16. Basic Type Face Weights and Widths
17. Determining Correct Placing of Unfamiliar Type
18. Origin and Classification of Type Faces
19. Introduction to Layout
20. Lock-up for the Platen Press
21. Platen Press Feeding
22. Preparation of the Platen Press for Running
23. Machine Composition
24. Introduction to Lithography
25. Introduction to Bindery
26. Career Opportunities
27. Graphic Art Terms

GRAPHIC ARTS 22 (15 credits)

Course Content

1. Origin and Development of Movable Types
2. Evolution of the Printing Press, Platen, Cylinder, Rotary
3. Principles of Typographic Design
4. Layout for Letterpress and Offset
5. Rule Form Composition
6. Display Composition
7. Platen Presswork Including Automatic Platen
8. Printing Press Rollers
9. Printing Ink
10. Paper; Paper Making, Printing Papers
11. Paper Cutting
12. Letterpress Printing Plates
13. Color Register Printing

14. Special Letterpress Operations
15. Bindery Operations and Machines
16. Thermography
17. School Newspaper
18. Rubber Stamp Making
19. Introduction to Cylinder Presswork
20. Elements of Photography
21. Origin and Development of Lithography
22. Copy Preparation for Offset Lithography
23. Introduction to Camera Work
24. Film Processing
25. Film Opaquing, Corrections and Additions
26. Layout and Stripping
27. Platemaking
28. Offset Presswork
29. Other Duplicating Processes for Home, School or Office
30. Apprenticeship in the Graphic Arts Industry

GRAPHIC ARTS 32 (15 or 20 credits)

Course Content

1. Comparative Study of the Three Printing Processes Using Plates
2. Basic Operations of Casting Machines
3. Copy-Fitting and Markup
4. Page Imposition and Lockup
5. Advanced Presswork
6. Intaglio Printing (Gravure)
7. Screen Process Printing
8. Folding, Box Cutting and Printing
9. Xerography and Xeroprinting
10. Advanced Darkroom Practices
11. Advanced Layout and Design
12. Advanced Copy Preparation for Offset Lithography
13. Copy-producing Typewriters
14. Photo Composition
15. Color Process Printing
16. Book Binding
17. Modern Packaging
18. Casting and Job Estimating
19. The Future of the Graphic Arts Industry

Texts

Graphic Arts 12

Practice of Printing: Polk

GRAPHIC ARTS 22

Practice of Printing: Polk

Photo-Offset Fundamentals: Cogoli

GRAPHIC ARTS 32

Printing Layout and Design: Delmar

Lithographer 3 and 2: U.S. Gov't. Printing Office

BEAUTY CULTURE 12, 22, 32

Objectives

1. To equip students with sufficient skill and knowledge to be efficient beauticians.
2. To develop good habits of work, safety, courtesy, etc.
3. To develop a high standard of craftsmanship and cleanliness.
4. To acquaint the students with the range of opportunities in beauty culture.

BEAUTY CULTURE 12 (5 or 10 credits)

Course Content

1. Ethics and Professional Conduct
2. History of Beauty Culture
3. Safety Rules; First Aid
4. Duties of Students
5. Sanitation
6. Care of Hair
 - (a) Structure and Physical Properties of Hair
 - (b) Washing, Coloring
 - (c) Cutting
 - (d) Curling
 - (e) Scalp Treatments
 - (f) Permanent Waving

BEAUTY CULTURE 22 (15 or 20 credits)

Course Content

1. Advanced Styling
2. Physiology
3. Facials
4. Eyebrows
5. Eyelashes
6. Make-up
7. Manicures
8. Hair Coloring
9. Electricity

BEAUTY CULTURE 32 (15, 20 or 25 credits)

Course Content

1. Advanced Hair Styling
2. Advanced Hair Coloring

3. Makeup
4. Modelling
5. Specializing in Various Fields
6. Shop Management

Texts

Beauty Culture 12, 22, 32

Professional Training for Beauticians — Milady Publishing Corp.

WELDING

General Objectives

1. To impart to the student a knowledge of the role that welding plays in industry and the opportunities that exist in this field.
2. To equip a student with sufficient skill and knowledge such that he will be highly employable in the welding trade.
3. To enable a student entering the welding apprenticeship program to advance at an accelerated rate on the basis of proven ability.

Specific Objectives

1. To enable students to use welding equipment efficiently, accurately and safely.
2. To develop habits of safety, good use of time and materials and good working relationships.
3. To develop the skill to prepare and interpret accurate working drawings.
4. To familiarize students with different types of metal used in industry and problems related to the welding or brazing of these.

WELDING 12 (5 credits)

1. Trade Study
2. General Shop Practice
 - Cutting Metal to a Line
 - Drilling a Hole
 - Using an Electric Drill
 - Using a Grinder
 - Using a Punch
 - Reconditioning a Cold Chisel
 - Using a Hammer
 - Installing Screws
 - Fastening a Nut and Bolt
 - Using Clamping Devices
 - Using a Power Hacksaw
 - Shearing Sheet Metal and Plate
 - Extinguishing a Fire
 - Storing Material in a Rack
 - Personal and Shop Cleanliness
 - General Safety

WELDING 22 (15 credits)

1. General Shop Practice
 - (a) Power Sanding
 - (b) Filing
 - (c) Storing Materials

2. Using and Storing Oxy-Acetylene Equipment
 - (a) History of Oxy-acetylene Welding
 - (b) Handling and Storing Oxygen Cylinders
 - (c) Handling and Storing Acetylene Cylinder
 - (d) Handling and Storing Cylinders of other Gases
 - (e) Generating Acetylene Gas
 - (f) Setting up Equipment
 - (g) Using Oxy-acetylene Equipment
 - (h) Disassembling and Storing
3. Welding Ferrous Metals
 - (a) Preparing Job
 - (b) Running a Bead
 - (c) Welding Sheet Metal
 - (d) Welding Steel Plate
 - (e) Welding Cast Iron
 - (f) Welding Cast Steel
4. Welding Non-ferrous Metals
 - (a) Welding Aluminum and Aluminum Alloys
 - (b) Welding Copper and Copper Alloys
 - (c) Welding Zinc and Zinc Base Die Castings
5. Brazewelding and Brazing
 - (a) Brazewelding Mild Steel; Cast Iron, Malleable Castings
 - (b) Brazing with Silver Alloys
 - (c) Brazing Aluminum Alloys
6. Installing and Using Welders
 - (a) History of Electric Arc Welding
 - (b) Using D.C. Welder
 - (c) Using A.C. Rectifier Welder
 - (d) Using D.C. Rectifier Welder
7. Welding Ferrous Metals
 - (a) Preparing Job and Equipment
 - (b) Running a Bead
 - (c) Welding Sheet Metal
 - (d) Welding Mild Steel Plate and low Alloy Plate
 - (e) Welding Steel Pipe
 - (f) Welding Cast Iron
8. Surfacing
 - (a) Building up a surface
9. Cutting
 - (a) Mild Steel and low Alloy Steel
 - (b) Mild Steel Plate
 - (c) Bevel Cutting
 - (d) Cutting Cast Iron
10. Flame Heating and Heat Treating
 - (a) Flame Hardening Medium Carbon Steel
 - (b) Flame Softening Medium Carbon Steel
 - (c) Forming, Bending, Straightening by Use of Heat
11. Metallurgy
 - (a) Industrial Tours Films
 - (b) Heat Treatment

WELDING 32 (15 or 20 credits)

Content

1. Using and storing Oxy-acetylene Equipment
 - (a) Preparing Job
 - (b) Running Bead
 - (c) Welding Sheet Metal — all Positions
 - (d) Welding Steel Plate — all Positions
 - (e) Welding Pipe
 - (f) Welding Cast Iron
2. Welding Non-Ferrous Metals
 - (a) Aluminum and Aluminum Alloys
 - (b) Copper and Copper Alloys
 - (c) Zinc and Zinc Base Die Castings — Flat
3. Brazewelding and Brazing
 - (a) Brazewelding Mild Steel, etc.
 - (b) Brazing with Silver Alloys
 - (c) Brazing Aluminum and Aluminum Alloys
4. Surfacing
 - (a) Surfacing with Bronze
 - (b) Hard Surfacing
 - (c) Hard Setting
5. Installing and Using Electric Arc Welders
 - (a) History
 - (b) Using D.C. Welder
 - (c) Using A.C. Transformer Welder
 - (d) Using D.C. Rectifier Welder
6. Welding Ferrous Metals
 - (a) Preparing Job
 - (b) Running a Bead
 - (c) Welding Sheet Metal
 - (d) Welding Mild Steel Plate and Low Alloy Plate
 - (e) Welding Steel Plate
 - (f) Welding Cast Iron
7. Welding Various Metals
 - (a) Welding Stainless Steel
 - (b) Welding Copper Base Alloys
 - (c) Welding Steel Pipe
 - (d) Welding Cast Iron
8. Welding Various Metals
 - (a) Stainless Steel
 - (b) Copper and Copper Base Alloys
 - (c) Aluminum and Aluminum Base Alloys
 - (d) Medium and High Carbon Spring Steel
9. Surfacing
 - (a) Building up Surfaces
10. Inert Gas Welding
 - (a) With Shielded Tungsten Inert Gas (T.I.G.)
 - (b) With Metal-shielded Inert Gas (M.I.G.)
11. Cutting
 - (a) Mild Steel, etc.
 - (b) Mild Steel Pipe
 - (c) Flame Cutting Metals of Poor Cutability
 - (d) Bevel Cutting
 - (e) Gauging Mild Steel

12. Flame Heating and Heat Treating
 - (a) Flame Hardening Carbon Steel
 - (b) Flame Softening Carbon Steel
 - (c) Forming Beading by use of Heat
13. Testing Welds
 - (a) Various Methods
14. Development and Blueprint Reading
15. Metallurgy (20 hours)
16. General (Trade and Industrial Information) 40 hours

Text

Welding 22

Blue Print Reading for Welders: Bennett & Siy

MACHINE SHOP 12, 22, 32

General Objectives

1. To impart knowledge of the role the machinist plays in industry and the opportunities that exist in this field.
2. To equip a student with sufficient skill and knowledge such that he will be highly employable in the machinist trade.
3. To enable a student to advance at an accelerated rate on the basis of his proven ability.
4. To prepare a student to a degree of competency acceptable to the Institutes of Technology, sufficient for entrance into the second year of the mechanical technology course.

Specific Objectives

1. To enable students to operate power machines efficiently, safely and accurately.
2. To acquaint student with the basic types, features and functions of machinery used in the machinist trade.
3. To develop desirable habits concerning safety and good working relationships; proper use of time and materials.
4. To develop high standards of workmanship.
5. To develop skills and knowledge required to interpret blueprints and to produce accurate drawings.
6. To make student familiar with different types of metal used in industry.

MACHINE SHOP 12 (5 credits)

Course Content

1. The Machinist Trade
2. Layout Work
3. Bench Work
4. Metallurgy
5. Lathe Work
6. Power Sawing
7. Drill Press Work
8. Grinding

MACHINE SHOP 22 (15 credits)

1. Layout Work
2. Bench Work
3. Hot Metal Work
4. Milling
5. Grinding
6. Shaping

MACHINE SHOP 32 (15 or 20 credits)

1. Mechanical Drafting
 - (a) Lettering
 - (b) Instruments and Materials
 - (c) Geometrical Construction
 - (d) Theory of Projection
 - (e) Dimensioning
 - (f) Technical Sketching
 - (g) Tolerancing
 - (h) Threads, Fasteners and Springs
 - (i) Intersections and Development
 - (j) Revolutions
 - (k) Working Drawings
 - (l) Reproduction of Drawings
2. Lathe Work
3. Milling
4. Grinding
5. Shaping
6. Gauges and Gauging
7. Materials
8. General Information
 - Employment opportunities
 - Provincial apprenticeship program
 - Workmen's compensation
 - Unemployment Insurance
 - Cost estimating

Texts

Machine Shop 12

Machine Shop Theory and Practice: Hallett

Machine Shop 22 and 32

Machine Tool Metalworking: Feirer & Tatro

BUILDING CONSTRUCTION

General Objectives

1. To acquaint the student with the construction industry and the opportunities in this field.
2. To equip a student with sufficient skill that he will be highly employable in the construction industry.
3. To enable a student entering the carpentry apprentice program to advance at an accelerated rate on the basis of his proven ability.

Texts

Building Construction 12

Hand and Machine Woodwork: Miller

Building Construction 22 and 32

Principles and Practices of Light Construction: Smith

AUTOMOTIVES

General Objectives

1. To equip a student with sufficient skill and knowledge that he will be highly employable in the automotive industry.
2. To enable the student entering the automotive apprenticeship program to advance at an accelerated rate on the basis of proven ability.
3. To encourage the student in the development of desirable work habits, a sense of responsibility and the ability to cooperate with associates.
4. To develop an attitude of safety consciousness in the student.

AUTOMOTIVES 12 (5 credits)

Objectives

1. To develop an understanding of the operation and construction of the various components of the automobile.
2. To develop basic skills in the care and safe use of hand and power tools.
3. To make the student familiar with service and repair procedure.
4. To impart occupational information related to the opportunities in the automotive industry.

Course Content

1. Introduction and Basic Tools
2. Chassis
3. Lubrication and Servicing
4. The Internal Combustion Engine
5. Fuel System
6. Hydraulic Brake System
7. Transmission
8. Drive Line
9. Rear Axle Assembly
10. Front End
11. Steering
12. Ignition
13. Trade Information

AUTOMOTIVES 22 (15 credits)

Course Content

1. Orientation
2. Shop Safety
3. Power Tools

4. The Clutch
5. Transmission and Overdrive
6. Driveshafts and Universal Joints
7. Rear Axle
8. Braking System
9. Steering and Wheel Alignment
10. Wheels and Tires

AUTOMOTIVES 32 (15 or 20 credits)

1. Orientation
2. The Engine and Engine Overhaul
3. The Lubricating System
4. The Cooling System
5. The Fuel System
6. The Electrical System
7. Tune-Up
8. Guidance Information
9. Business Organization

Texts

Automotives 12

Automotives Fundamentals: Nash, 2nd Edition

Automotives 22 and 32

Automotive Mechanics, 5th Edition: Crouse

FOOD PREPARATION

Objectives

1. To provide training in fundamental skills, knowledge and attitudes in food preparation.
2. To raise the standards of the food industry by providing a source of trained personnel.
3. To raise the prestige of the food service worker by offering training recognized by industry and the community.
4. To encourage the development of reliable workers and good citizens.

FOOD PREPARATION 12 (5 credits)

1. Dishwashing
2. Caring for a Refrigerator
3. The Range
4. Storage of Food
5. Care of Individual Stations
6. Serving
7. Nutrition
8. Sauces
9. Vegetables
10. Meat Cookery
11. Cooking Projects

12. Entrees
13. Cookery Projects
14. Cookies
15. Pies and Tarts
16. Desserts

FOOD PREPARATION 22 (15 or 20 credits)

1. Orientation
2. Operating a Range
3. The Refrigerator
4. Washing of Dishes
5. Large Quantity Cooking
6. Dining Room Service

FOOD PREPARATION 32 (15, 20 or 25 credits)

1. Menu Planning
2. Practical Devices for Cutting Costs
3. Menus Planning — Writing
4. Banquets
5. Food Cost Accounting

Texts

Food Preparation 12

Experiences With Foods: Pollard

Food Preparation 22

100 to Dinner: Middleton, Carter & Vierin

COMMERCIAL ART

Objectives

1. To fit students for employment in secondary art fields such as sign and show card writing.
2. To develop skills and understanding in subjects that would be presented at an advanced art training school.
3. To develop appreciation of good design.
4. To develop sound craftsmanship through proper disciplined approach to use of tools and machinery.

COMMERCIAL ART 12 (5 credits)

Course Content

1. Basic Drawing
2. Design
3. Color
4. Basic Lettering
5. Layout for Commerical Purposes
6. Illustration and Picture Making
7. Opportunities in Art and Related Occupations

COMMERCIAL ART 22 (15 credits)
AND 32 (15 or 20 credits)

1. Sign and Show Card Writing
2. Display
3. General

ELECTRICITY 12 AND ELECTRONICS 22 AND 32

Objectives

1. To impart a knowledge of the role that electricity and electronics play in industry today.
2. To equip the student with sufficient background knowledge that he will be highly employable in the electrical or electronics field.
3. To provide the student with sufficient background that he may enter the apprenticeship program and advance at an accelerated rate.
4. To prepare the student with a degree of competency acceptable to the Institutes of Technology sufficient for entry into the second year of the electronic technology program.

ELECTRICITY 12 (5 credits)

Objectives

1. To provide exploratory experiences in electricity and electronics.
2. To acquaint students with the opportunities for employment in these fields.
3. To provide necessary background for Electricity 22 and Electronics 22.

Course Outline

1. Opportunities in Electricity and Electronics
2. Basic Concepts of Electricity
3. Sources of E.M.F.
4. Basic D.C. Circuits
5. Magnetism and Electromagnetism
6. D.C. Measuring Instruments

ELECTRONICS 22 (15 credits)

Course Content

1. Introduction
2. Electron Theory
3. Electricity
4. Ohm's Law
5. Series Circuits
6. Parallel Circuits
7. Series — Parallel Circuits
8. Conductors and Insulators
9. Resistors
10. Batteries
11. Magnetism
12. Magnetic Units
13. Electromagnetism
14. Alternating Voltage and Current

15. Inductance
16. Inductive Reactance
17. Inductive Circuits
18. Capacitance
19. Capacitance Reactance
20. Capacitive Circuits
21. A.C. Circuits
22. Resonance
23. Filters
24. Electron Tubes
25. Transistors
26. Radio Frequency Losses
27. Vacuum Tube Amplifiers
28. Transistor Amplifiers
29. Radio Frequency Circuits
30. Oscillators
31. Power Supplies
32. Meters
33. Receiver Theory

ELECTRONICS 32 (15 or 20 credits)

Course Content

1. Receiver Theory
2. Transmission Theory
3. Instrument Theory
4. Introduction to Television

Texts

Electronics 22

Laboratory Manual—Basic Radios: Zbar & Schildkraut
Laboratory Manual—Basic Electronics: Zbar & Schildkraut
Application of Electronics: Grob & Kiver—Also Electronics 32
Basic Electronics: Grob

Electronics 32

Laboratory Manual—Basic Radios: Zbar & Schildkraut
*Practical Radio Servicing—*Marcus & Levy
*Theory and Use of Electronic Test Equipment—*U.S. Gov't. Printing Office,
 Washington, D.C.
Lab Manual—Electronic Instruments and Measurement: Zbar & Schildkraut

DRAFTING

Objectives

1. To prepare a student for employment in the drafting industry.
2. To prepare a student to a degree of competency acceptable to the Institutes of Technology for entrance into the second year of drafting technology or architectural technology.
3. To supply those going into related fields such as estimating, etc., with enough skills so that they may do blueprint reading and drafting.
4. To develop the personality of the student so that he will be reliable, industrious, cooperative and socially-acceptable.

5. To develop a systematic approach to solving problems of the type likely to be encountered in industry.
6. To assist the student in reading, appraising and understanding technical language.

Drafting 12 (5 credits)

Objectives

1. To create a desire for proficiency and accuracy in drafting and related theory.
2. To develop habits of neatness, cleanliness and orderliness in work situations.
3. To understand the importance of drafting and related technical skills and knowledge in an industrial nation.

Course Content

1. Lettering
2. Sketching
3. Use and Care of Instruments
4. Layout
5. Orthographic Projection
6. Scale Drawing
7. Dimensioning
8. Isometric Drawing
9. Oblique Projection

DRAFTING 22 AND 32

Specific Objectives

1. To promote an appreciation of craftsmanship in drafting.
2. To work in an orderly and efficient manner.
3. To develop skills in lettering, mechanical drawing and sketching.
4. To provide practical knowledge and experience in the fields of metalwork and building construction.

Course Content

Part I (Drafting 22) (10) credits)

- | | |
|------------------------------|----------------------------|
| 1. Lettering | 8. Bench Work |
| 2. Instruments and Materials | 9. Metal Fasteners |
| 3. Geometrical Construction | 10. The Drill Press |
| 4. Theory of Projection | 11. The Engine Lathe |
| 5. Dimensioning | 12. Abrasives and Grinding |
| 6. Reproduction of Drawing | 13. Metallurgy |
| 7. Metal Layout Work | |

Part II (Metalwork for Drafting 22) (5 credits)

1. Layout Work
2. Bench Work
3. Abrasives and Grinding
4. Drilling
5. The Engine Lathe
6. Metallurgy

DRAFTING 32

Part I (Drafting) (10 or 15 credits)

1. Trade Information
2. Blueprint Reading
3. Design Fundamentals
4. Detail and Assemble Drawings
5. Developments and Intersections
6. Materials for Construction
7. Hand Tools
8. The Foundation
9. Floor Framing
10. Wall Framing
11. Ceiling Framing
12. Roof Framing
13. Other Roof Systems
14. Exterior Finishing
15. Interior Finishing

Part II (Building Construction)

(5 credits)

1. Shop Orientation
2. Hand Tools and Bench Work
3. Machine Woodworking Tools
4. Joinery
5. Building Construction

Texts

Drafting 12

Mechanical Drawing, 7th Edition: French and Svenson

Drafting 22

Mechanical Drawing, 7th Edition: French and Svenson

Machine Drafting and Related Technology: Yankee

Machine Shop Training: Krar and St. Amand

Drafting 32

Mechanical Drawing, 7th Edition: French and Svenson

Machine Drafting and Related Technology: Yankee

Architecture, Drafting and Design: Hepler and Wallach

AUTO BODY 12, 22, 32

Objectives

1. To equip a student with sufficient skill and knowledge such that he will be highly employable in the automotive industry.
2. To enable the student entering the Auto Body Apprenticeship program, to advance at an accelerated rate on the basis of his proven ability on the job.
3. To encourage the student in the development of desirable work habits, a sense of responsibility and the ability to cooperate with his associates.
4. To develop an attitude of safety consciousness in the student, regarding all phases of the automotive industry.

AUTO BODY 12 (5 credits)

1. Introduction; i.e. nature of work, training necessary, future of trade, working conditions, related occupations.
2. Shop familiarization; tour of shop, shop organization and procedures.
3. Cutting metal with hacksaw.
4. Drilling a hole using drill press and electric hand drill.
5. Using a grinder.
6. Sharpening chisels.
7. Fastening bolts and nuts.
8. Extinguishing fires.
9. Construction of automobile body.
10. Alignment
11. Metal finishing.
12. Auto Body welding - history of oxy-acetylene welding.
13. Functions of interior finishing
14. Introduction to Auto Body painting.
15. Surface preparation and sanding of bare metal, old paint surface and masking.
16. Spraying equipment.

AUTO BODY 22 (15 credits)

1. Introduction
2. Shop Safety.
3. Language and Tools of Auto Body.
4. Alignment.
5. Metal Finishing.
6. Auto body welding.
7. Auto body painting
8. Interior body trim and hardware.

AUTO BODY 32 (15 or 20 credits)

1. Introduction
 - (a) Construction, use and maintenance of the spray booth and heat lamps.
 - (b) Decision on repairable and replaceable parts.
 - (c) Installation of new parts.
 - (d) Auto body business fundamentals, estimating, flat rate schedules.
2. Alignment.
3. Metal finishing.

4. Auto Body Welding
(a) Review of safety practices for welding.
5. Auto Body Painting.
6. Auto Body Trim and Hardware.

Texts

Auto Body 22

Automotive Collision Work, 3rd Edition, Venk, Spicer and Davies

Auto Body 32

Automobile Sheet Metal Repair, Sargent.

PRODUCTION WOODWORKING 12, 22, 32

Objectives

1. To acquaint the student with the machine production industry and the opportunities for employment that exist in this field.
2. To equip a student with sufficient skill and knowledge that he will be highly employable in mechanized wood production industry.
3. To encourage the natural interest in the use of power production methods.
4. To provide a specialized training for students who will be in the labor market upon leaving school.
5. To provide a thorough basic training in an occupation in which certain students may go into business for themselves.

Production Woodworking 12, 22, 32

1. Planning
2. Layout
3. Surfacing
4. Cutting
5. Joining
6. Fastening
7. Boring and Drilling
8. Shaping and Surface Design
9. Preparatory Finishing
10. Wood Finishing
11. Wood as a Material
12. Related Materials
13. Maintenance
14. Construction Principles
15. Production Proficiency

All work in the "32" program will be the same as may be encountered in the trade. Extended use of the specialized machinery including the single ended tenoning machine, hollow chisel and chain mortising machines will be directed toward more efficient results. Students will be required to think out and plan the jobs themselves with confidence and a good measure of success.

AGRICULTURAL MECHANICS 22, 32

General Objectives

The purpose of this program is:

1. To enable the student to develop skill in the correct use and care of hand and machine tools required for the servicing and maintenance of farm machinery and equipment.
2. To develop an understanding of the design and operating principles of farm machinery in order that the student may repair and service the equipment intelligently.
3. To develop habits which will result in good use of time and materials, good work relationships and safe practices.

AGRICULTURAL MECHANICS 22 (20 credits)

Course Content

Unit I — Welding (5 credits)

A. Oxy-Acetylene Welding

1. Using and storing equipment
2. Welding Ferrous Metals
3. Braze welding and Brazing
4. Cutting

B. Electric Arc Welding

1. Installing and Using Welders
2. Welding Ferrous Metal

Unit II — Farm Shop (5 credits)

- A. Introduction
- B. Bench Metalwork
- C. Machine Metalwork
- D. Hot Metalwork
- E. Sheet Metalwork

Unit III — Farm Power Units and Power Transmission (5 credits)

A. The Internal Combustion Engine

1. Engine Principles and Design
2. Fuel System
3. Ignition System
4. Engine Operation

B. Power Transmission

1. Levers
2. Pulleys and Belts
3. Friction Wheels
4. Gears
5. Bearings
6. Transmissions
7. Differentials
8. Clutches
9. Chain and Sprockets
10. Cams and Cranks
11. Power Take-Offs
12. Hydraulics

Unit IV — Farm Machinery (5 credits)

AGRICULTURE MECHANICS 32 (15 or 20 credits)

Course Content

Unit I — Farm Power (5 credits)

- A. Fuel Systems
- B. Cooling Systems
- C. Lubrication Systems
- D. Electrical Systems
- E. Service Work

Unit II — Farm Machinery (5 credits)

Unit III — Farm Buildings (3 credits)

Unit IV — Welding (2 credits)

A. Oxy-Acetylene Welding

1. Metallurgy
2. Welding Cast Iron

3. Welding non-Ferrous Metals
4. Surfacing

B. Arc Welding

1. Review
2. Welding Cast Iron
3. Surfacing

LB 1629-5 A3 A35 1965 GR-10-12
PROGRAM OF STUDIES FOR SENIOR
HIGH SCHOOLS OF ALBERTA --

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